

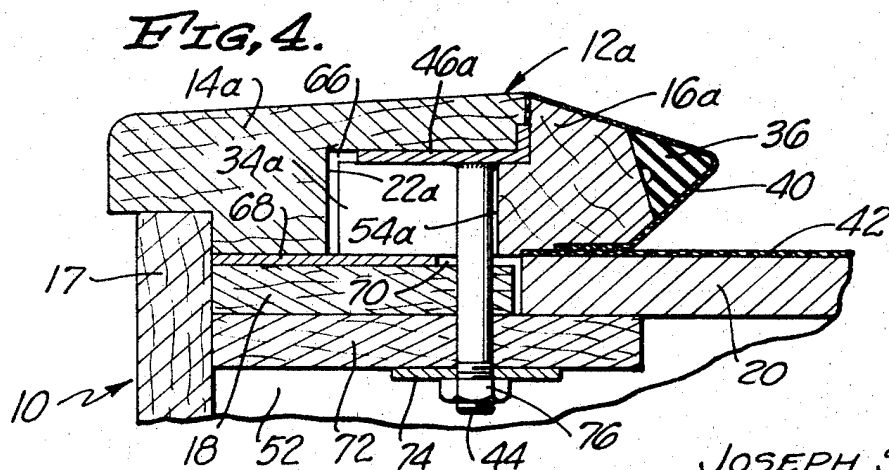
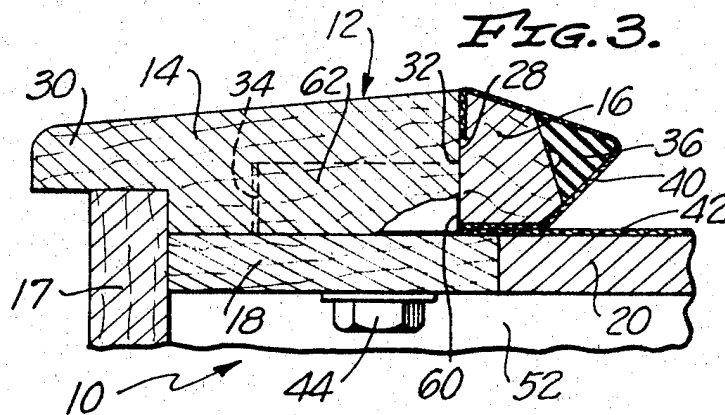
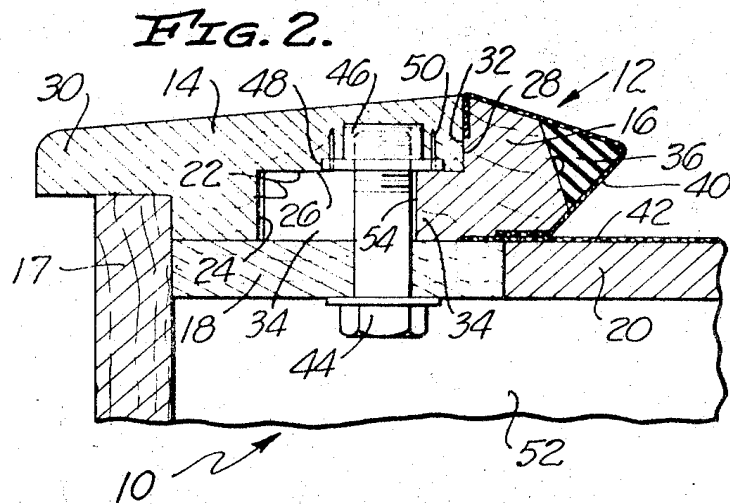
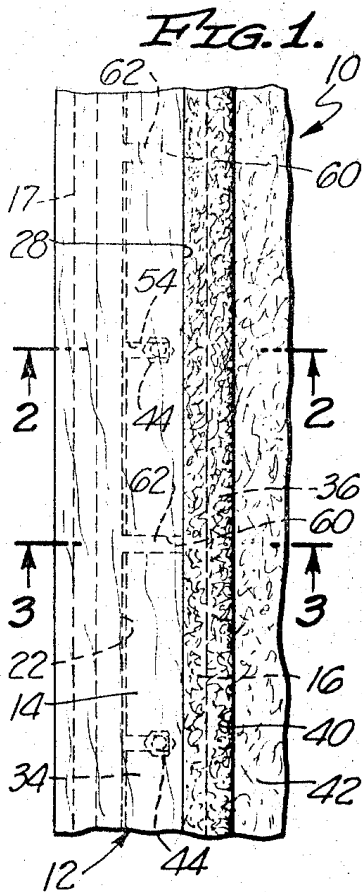
Sept. 9, 1969

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3,466,035

DISASSEMBLABLE TOP RAIL FOR A BILLIARD TABLE

Filed Sept. 15, 1967



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3,466,035

DISASSEMBLABLE TOP RAIL FOR A BILLIARD TABLE

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Filed Sept. 15, 1967, Ser. No. 667,985

Int. Cl. A63d 15/06

U.S. Cl. 273—9

6 Claims

ABSTRACT OF THE DISCLOSURE

A top rail construction for a billiard table or the like consisting of outer elongated members secured to the periphery of the table, each outer member having a longitudinal inboard bottom recess, and elongated inner members, each inner member having a longitudinal outboard bottom projection. The recesses are adapted to receive respective projections to enable the inner members to laterally slidably engage the outer members to form a substantially contiguous top rail where the inner members are releasably and removably secured to the table for ease in repairing the cloth covering.

This invention relates to billiard tables, pool tables, or snooker tables, or the like, and more particularly to a novel top rail construction for same. Because the novel top rail construction disclosed herein may be used with any type or form of billiard, pool, and snooker tables, and the like, the use of the terms "billiard table" or "table" herein is intended to refer to any and all of these various forms and models of tables.

Billiard tables generally are constructed in the form of a rectangular play field or bed peripherally surrounded on all four sides by top rails having rubber cushioned interior edges covered with cloth. The two most important features of billiard table design and construction are a level, firm bed, and firm, straight rails which insure fast and accurate ball rebound. Use of adequately supported natural slate or a similar material for the bed provides the first important feature. To insure the latter feature, suitable rubber cushions are attached to solid wood rails that have maximum rigidity and firmness and provide a uniform straight edge for the cushion at a proper angle and height from the table bed.

Two types of top rails are most commonly employed today. The first type is a solid, one-piece rail consisting of one piece of wood or of several pieces of wood permanently glued together to form one solid unit. This rail is clamped down to the table bed, usually by bolts which are anchored in the rail and pass through the bed. The bolts are tightened from underneath the bed to firmly clamp the rail to the bed. The rails on all four sides of the table are customarily formed into one assembly which when bolted down firmly to the bed of the table provides excellent rigidity and stability. This type of rail, however, has an inherent weakness. Because the rails are formed into one assembly, the assembly itself is difficult and awkward to handle when the table is being repaired, particularly where space is limited. The entire rail assembly has to be lifted off the table to provide access to the cushions or to the bed. This is a cumbersome and time-consuming operation especially since the usual commercial table needs new cloth covering every three or four months.

The second type of rail currently in use is a two-piece rail, with a front and rear section and with the division between the two sections being in a vertical plane. The front section includes the rubber cushion and the assembly is normally termed a "removable cushion" rail. The rear section is permanently or removably attached to side

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members of the table to form a strong box-like structure, and the front section is usually removably attached to the rear section by means of a lateral bolt or screw-type arrangement. This type of rail is much more easily dismantled than the first type and is therefore much more economical in its over-all use. However, this two-piece rail is not as rigid or solid as the one-piece rail even though the rear section may be firmly and permanently secured to the table. Further, a cushion-supporting rail portion that is bolted or clamped to the bed of the table with downward pressure is superior to such a rail portion that is bolted or clamped or screwed to the side with lateral pressure because the chief function of the rail is to maintain a rigid support with the correct angle and height for the cushion in relation to the bed of the table. The proper angle and height is more adequately retained over the length of the rail where the bolting pressure is vertical rather than horizontal.

I have developed a novel rail construction that combines the advantageous features of both of these currently used rails while not retaining any of the weaknesses. Basically, my structure is a two-piece rail where outer sections are secured to the sides of the table by gluing, bolting, or other means to provide initial rigidity and firmness but where inner contiguous cushion-supporting sections are attached to the table bed or base by a vertical pressure-type clamping means. Lower recess-type portions of the outer rail slidably receive lower projecting portions of the inner rail, and in the contiguous set position the inner sections are releasably secured to the table for easy and fast removal.

It is an object of this invention, therefore, to provide a top rail for a billiard table or the like which is easily dismantled for repairs to the table.

Another object of this invention is to provide an easily top rail consisting of two sections one of which forms the cushion support and is laterally slidably engageable with the other outer section which is rigidly secured to the edge of the table.

Another object of this invention is to provide such an easily dismantled top rail where the cushion-supporting section is releasably secured to the table by a vertical pressure-type means. A further object is to provide such a pressure-type means which applies pressure for substantially the entire length of the rail.

Another object of this invention is to provide such a rail where the means for releasably securing the slidable portion to the table need not be completely removed to enable the sliding movement of the cushion-supporting section.

A further object of this invention is to provide a top rail construction for a billiard table or the like comprising a first elongated member secured along a peripheral edge of said table and having a bottom recess portion extending substantially the length of said first member along its inboard face, a second elongated member having a bottom projecting portion extending substantially the length of said second member along its outboard face with said second member removably positioned contiguous said first member in a set position wherein said bottom projecting portion is laterally slidably received by said recessed portion, and means for releasably securing said second member to said table when in said set position.

Yet another object of this invention is to provide such a top rail construction wherein said bottom projecting portion includes a lateral slot and said securing means includes a bolt received by said slot, said slot permitting lateral movement of said second member when said bolt is loosened.

Still another object of this invention is to provide such a two-piece rail where the outer member of the rail in-

cludes a means of support for the portion of the rail extending above the recess when the other slidably removable member of the rail has been removed.

The invention, both as to its organization and method of operation, together with further objects and advantages thereof, may best be understood by reference to the following description taken in connection with the accompanying drawing.

In the drawing:

FIG. 1 is a top plan view of an edge portion of a billiard table or the like showing a preferred embodiment of my top rail construction;

FIG. 2 is an enlarged sectional view taken along the line 2—2 in FIG. 1;

FIG. 3 is an enlarged sectional view taken along the line 3—3 in FIG. 1; and

FIG. 4 is an enlarged sectional view of another embodiment of my invention as taken along the line 2—2 in FIG. 1.

Referring to FIGS. 1 through 3 of the drawing, a portion of a billiard table or the like 10 is shown with a top rail 12. The top rail 12 is formed from two contiguous sections, an outer elongated section or member 14 and an inner elongated section or member 16. The outer member 14, preferably solid wood, is rigidly and firmly attached to a side or edge wall 17 of the table 10 and to a support member 18 which may abut against a bed or slate material 20 of the table. A lower or bottom inner recess portion 22 extends substantially the entire length of the outer member 14 and is interrupted periodically, in the preferred embodiment, by rectangular protrusions 62. While in the preferred embodiment the recess portion 22 extends the full length of the outer member 14, with a protrusion or periodic protrusions 62, any recess 22 which extends substantially the entire length of the outer member 14 is intended to be within the scope of the invention. Preferably, the recess portion 22 is generally rectangular with a vertical side face 24 and an upper face 26. A preferably smooth, vertical face 28 forms the innermost portion of the member 14, while an outer edge portion 30 usually extends beyond the side or edge wall 17 of the table 10.

The inner member 16 of the top rail 12 is adapted to laterally slidably engage the outer member 14. The inner member 16 has a preferably smooth vertical face 32 to correspond with the inner face 28 of the member 14. A lower or bottom outboard projection 34 extends substantially the entire length of the member 16 and is preferably of a rectangular configuration to complement the recess 22 of the member 14. In the preferred embodiment, the projection 34 is provided with lateral slots 54 and 60. The projection 34 preferably extends the full length of the inner member 16; however, any projection 34 which extends substantially the length of the inner member 16 is intended to be within the scope of the invention. Preferably, each inner member 16 with its projection 34 complements a respective outer member 14 with its recess portion 22, although other forms of outer and inner members may be employed where the adjacent members may overlap one another. The member 16 may slidably laterally engage the member 14 where the projection 34 is received by the recess 22 above the slab 20 and support member 18 of the table 10. A contiguous triangularly sectioned rubber cushion 36 forms the innermost edge of the member 16 and is securely attached to the remainder of the member 16 which is preferably of a solid wood material. Cloth or felt 40 is attached on the outer faces of the member 16 as shown in FIG. 2, while cloth or felt 42 is secured atop the slab 20 of the table 10.

The inner member 16 in its set position as shown by FIG. 2 is releasably secured to the table 10 by some form of clamping means applying a vertical or downward pressure on the member 16. The clamping means preferably consists of a bolt 44 extending through openings in the

support member 18 and the projection 34 and into the outer member 14 above the recess 22. The bolt 44 is received by a suitable nut or receiving member 46, with an outwardly extending base flange 48, embedded in the member 14 and held in position as by nails 50. Any other form of receiving member 46 may be employed, such as a metal bar which is tapped and threaded to receive the bolt 44 (not shown). The bolt 44 is tightened from beneath the support member 18 or may extend below a frame or crossbeam 52 of the table 10 to beneath the table. Any other suitable clamping means may be employed, however, within the scope of the invention.

A plurality of the outer members 14 and the contiguous inner members 16 form a substantially continuous top rail about the four sides of the table. Where required, customary ball-receiving pockets may be provided about the periphery of the table (not shown). Each inner member 16 would be individually slidably removable from its set position contiguous an outer member or members 14.

In a preferred embodiment of the invention, a lateral slot 54 is provided in the projection 34 of each inner member 16 where the slot 54 is sized to receive the shank of the bolt 44. In this preferred embodiment, it is not necessary to remove the bolt 44 from the table to enable lateral sliding movement of the inner member 16. If the bolt 44 is loosened, the member 16 may be moved laterally where the bolt 44 is received by the slot 54 in the projection 34. This allows quick and easy removal and insertion of the inner member 16 when repairs are necessary to the table.

In the preferred embodiment of the invention, additional slots or grooves 60 are provided in the projection 34 of each inner member 16 as illustrated by FIGS. 1 and 3. The slots or grooves 60 are preferably rectangular and are sized to receive rectangular protrusions 62 in the recess 22 of the outer member 14. The protrusion 62 and the slots 60 aid in guiding the sliding movement of the inner member 16 to its contiguous position adjacent the outer member 14, and the protrusions 62 also serve as a form of support for the portion of the outer member 14 above the recess 22. When the inner members 16 have been removed for repairs to the table 10, oftentimes the slab 20 is removed from its playing position and rested upon the members 14. It is necessary, therefore, to provide a support for the portions of the members 14 which are above the recesses 22, and the protrusions 62 serve this function and accomplish an object of the invention.

Other objects of the invention are accomplished by the two-piece top rail 12 where an inner member 16 is laterally slidably positioned adjacent an outer member 14 where the outer member is permanently or removably secured to the billiard table 10. The slots 54 in the inner member 16 enable the member 16 to be moved laterally without removal of the vertical clamping force or bolt 44 which clamps the inner member 16 to the table 10 by applying downward pressure. The downward securing pressure on the inner member 16 maintains the correct angle and height between the inner edge of the cushion 36 and the bed of the table 10.

Another embodiment of my rail construction is illustrated by a top rail 12a as shown by FIG. 4. The rail 12a is similar to the top rail 12 as illustrated by FIG. 2 except that a recess 22a in an outer member 14a is deeper vertically, allowing a deeper projection 34a of an inner member 16a. A metallic flange member 46a forms the receiving member for the bolt 44. The flange member 46a may be L-shaped, as shown, or a flat horizontal bar, and the bolt 44 is welded to the flange member 46a or otherwise suitably secured to prevent turning of the bolt 44. The flange member 46a extends longitudinally between the lower face of the outer member 14a at the recess 22a and the upper face of the projection 34a and may be attached to the lower face of the outer member 14a at the recess 22a by screws or other means. The flange member 46a distributes the downward pressure more evenly to prevent buckling or distortion of the projection 34a. The parts

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preferably are dimensioned to provide an air gap 66 between the inner end and upper inner portion of projection 34a and the recess 22a, as shown, to deaden the sound of ball impact which otherwise would be directly transmitted to the table itself through outer member 14a.

A thin wood strip or sound deadening member 68 may be positioned above support member 18 and beneath outer member 14a and projection 34a. An air gap 70 may be left between member 68 and the slate or bed 20. A second support member 72 is positioned beneath support member 18 and extends laterally partially beneath the slate or bed 20. Bolt 44 extends through support members 18 and 72 and is received by an appropriate slot 54a in the projection 34a. An enlarged washer 74 is provided for bolt 44 where washer 74 extends to or beyond the vertical projections of the edges of the bed 20 and strip 68 as shown. Similarly, flange 46a is wide enough to extend to or beyond the vertical projections of the edges of the bed 20 and strip 68. By tightening the bolt 44 by nut 76, a vice-like clamping action is produced between flange 46a and washer 74 compressing inner member 16a against bed 20 and outer member 14a against strip 68 and support members 18 and 72. The air gap between strip 68 and bed 20 assures that maximum pressure will be applied to inner member 16a and bed 20. The uniform clamping action produced over the entire length of inner member 16a maintains the proper height and angle between the inner edge of the cushion 36 and the bed of the table 10.

The deeper the projection 34a, the more solid and stable the inner member 16a becomes for receiving the impact of the ball action against the rubber cushion 36. Where the size of the projection 34a is approximately the size as shown by FIG. 4, the rigidity strength of the member 16a approximates that of the one-piece rails now in use, as has been shown by actual tests. The outer member 14a preferably would include the protrusions 62 for support of the portion of the member 14a above the recess 22a. The inner member 16a would include the corresponding slots or grooves 60.

In assembling a billiard table or the like with my top rail construction, the outer section 14, or 14a, would be permanently or releasably secured to the edge or side walls 17 of the table 10. The slate or bed 20 would be set in place adjacent the support members 18 and above the frame or crossbeams 52 and support members 72. The bolts 44 are loosely positioned and the inner members 16 and 16a would be laterally slidably engaged contiguous with the outer members 14 or 14a and the clamping means or bolts 44 would then be tightened. To repair or recover the members 16 or 16a or the slate 20, the bolts 44 would be loosened and the inner members 16 or 16a laterally slidably removed from the table. If necessary, the slate 20 may now be removed from the table support members 18, 72, and 52 and rested on the members 14 or 14a which are supported by the protrusions 62. The entire repair operation is much quicker and easier than before. The top rails provide the required support for a uniform cushion edge for fast and accurate ball rebound.

Many changes, modifications, and substitutions may be made without departing from the spirit and scope of this invention.

I claim:

1. A top rail construction for a billiard table or the like, comprising:

a first elongated member mounted along a peripheral edge of said table and having a bottom recess portion extending substantially the length of said first member along its inboard face;

a second elongated member having a bottom projecting portion extending substantially the length of said second member along its outboard face, with said second member removably positioned contiguous said first member in a set position wherein said bottom

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projecting portion is laterally slidably received by said recess portion, said bottom projecting portion including a slot which is elongated laterally to open on the outboard face of said bottom projecting portion; and

means for releasably securing said second member to said table when in said set position including an elongated securing member received by said slot, said slot permitting lateral movement of said second member when said securing member is loosened.

2. A top rail construction as defined in claim 1 wherein said securing means applies pressure downwardly on said second member.

3. A top rail construction as defined in claim 2 wherein said securing means includes an elongated flange member attached to the lower face of said first elongated member at said recess portion, a support member beneath said first and second elongated members and said table, said securing member secured to said flange member and extending through said projecting portion and said support member, and tightening means on said securing member for applying pressure beneath said support member and above said projecting portion, said pressure producing a uniform clamping action on said second elongated member and said table substantially the entire length of said second elongated member.

4. A top rail construction for a billiard table or the like as defined in claim 1 wherein said bottom projecting portion includes a second lateral slot and said recess portion includes a lateral protrusion received by said second slot to guide the sliding movement of said second member and supporting the portion of said first member above said recess portion when said second member is removed.

5. A top rail for a billiard table or the like, including:

a plurality of outer members mounted about the upper periphery of said table along the edges of the table, each of said outer members having a bottom recessed portion extending substantially the length of the outer member along its inboard face;

a plurality of inner members, each of said inner members having a bottom projecting portion extending substantially the length of the inner member along its outboard face, said projecting portions laterally slidably received by said recessed portions so that said outer and inner members are substantially contiguous and form a substantially continuous top rail about the periphery of said table, each of said bottom projecting portions including a slot which is elongated laterally to open on the outboard face of said bottom projecting portion; and

means for releasably securing said inner members to said table including a plurality of elongated securing members received by said slots, said slots permitting lateral movement of said inner members when said securing members are loosened.

6. A top rail as defined in claim 5 wherein each of said bottom projecting portions includes an additional lateral slot and each of said recessed portions includes a respective lateral protrusion, said protrusions received by said additional lateral slots to guide the sliding movement of said inner members and supporting the portions of said outer members above said recessed portions when said inner members are removed.

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