

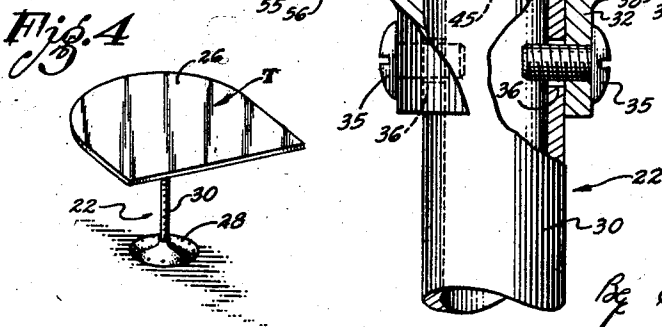
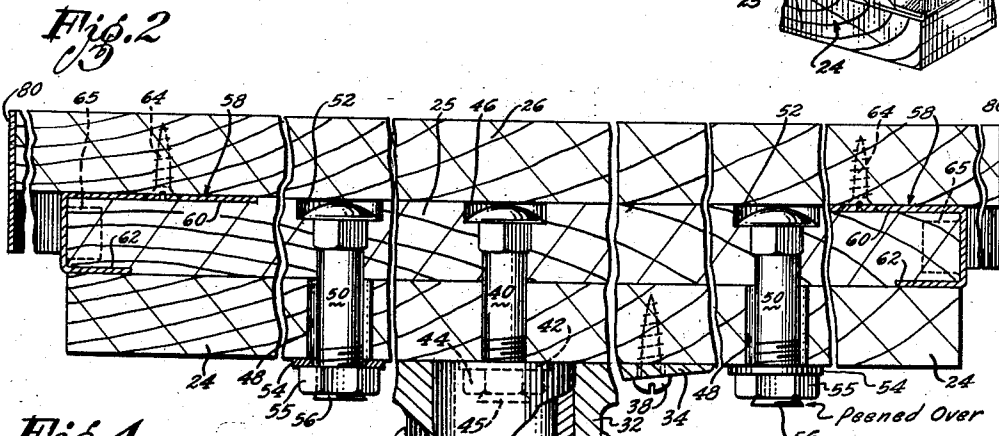
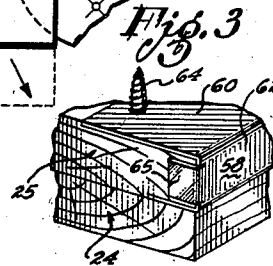
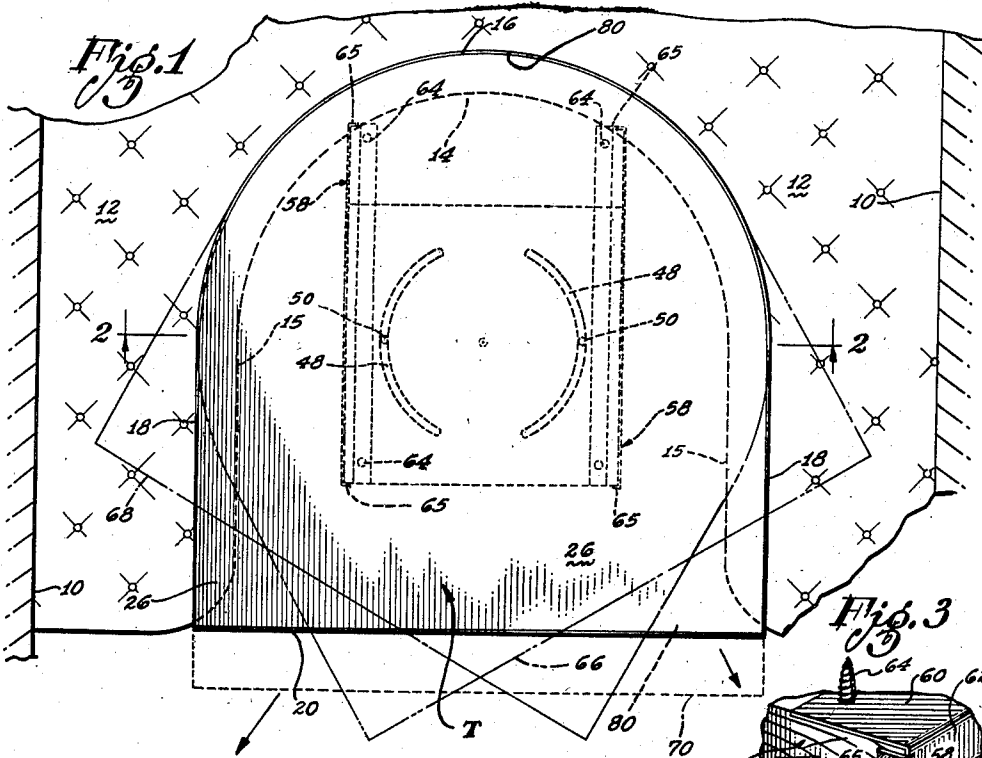
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MOVABLE-BOOTH TYPE TABLE TOP

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MOVABLE BOOTH TYPE TABLE TOP

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5 Claims. (Cl. 311—35)

This invention relates to tables for restaurants or the like, with particular reference to tables used in booths, and is directed to the construction of such a table that has a shiftable table top.

The preferred embodiment of the invention is a table for a booth that has a U-shaped seat, the seat having a semi-circular portion at the rear of the booth and two adjacent straight portions at the sides of the booth. The table has a base structure that is relatively heavy and stationary. Since the table top overhangs the booth seat on all three sides by a liberal margin, it is awkward for patrons to maneuver themselves into seated positions, especially seated positions at the rear of the booth, unless the table top is moved temporarily out of its normal position to provide more entrance space. It has been found that the table top should have two kinds of freedom of movement, namely freedom to pivot or swing laterally to provide entrance clearance on either side of the table and freedom to move linearly outward from the rear of the booth to provide access clearance to the rearmost semi-circular portion of the booth seat.

The invention is directed to the problem of providing these two kinds of freedom of movement by means of a table construction that is structurally efficient. To solve this problem, the table should be as strong and rigid as as conventional solidly constructed table. Strength and rigidity should characterize the table top at all of its positions throughout its two ranges of freedom of movement because patrons inevitably lean on the edge of the table for aid in getting into and out of seated positions in the booth. Thus, even though the table top is rotated to an extreme angular position and at the same time is shifted diametrically to the maximum, the displaced table top should still be capable of rigidly bearing at its edges any weight that may be imposed on it by patrons.

Structural efficiency in the construction of the table further requires that the table top be freely shiftable without troublesome frictional resistance. It is further important that the table structure stand up in active service without progressive wear-induced looseness of fit among its relatively movable parts.

Broadly described, the invention meets this problem by a table construction comprising a strong rigid base structure and two relatively movable parts. One of the two relatively movable parts is the table top itself. The other relatively movable part is positioned intermediate the table top and the fixed base structure. The success of the invention depends on the fact that the base structure and the intermediate movable part are specialized with respect to each other to provide one of the two kinds of freedom of movement of the table top, and the table top and the intermediate movable part are specialized with respect to each other to provide the other kind of freedom of movement. This limiting of a pair of relatively movable adjacent parts to only one of the two kinds of freedom of movement simplifies the problem of maintaining strength and rigidity throughout the two ranges of movement.

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In the preferred practice of the invention, the intermediate movable part cooperates with the rigid base structure to provide the required freedom for pivotal movement and the intermediate movable part cooperates with the table top to provide the required freedom for diametrical or linear movement. As will be explained, there is a special advantage in having the relative pivotal movement occur between the rigid base structure and the intermediate movable part rather than between the intermediate movable part and the table top.

For the purpose of providing the freedom for pivotal movement, the fixed base structure, which may be in the form of a pedestal, supports at its upper end a fixed horizontal top plate. This fixed plate may be referred to as a first panel and is provided with an axial stud extending upward therefrom. The intermediate movable part of the table is a similar horizontal plate which may be termed a second panel. This second panel rests on the fixed first panel and pivots about the axial stud. These two horizontal panels have a substantial area of mutual contact, the area being sufficiently extensive in all radial directions for the required rigidity of the table top.

A feature of the invention is the provision of means having the dual function of further insuring rigidity of the table top with respect to its pivotal movement and of desirably limiting the range of the pivotal movement. This provision consists of two diametrically opposite headed studs in one of the two panels, which studs slidably extend through corresponding arcuate slots in the other of the two panels. The headed studs prevent local separation of the two panels at the two diametrically opposite points and thus resist tipping of the table top.

To provide the required freedom for diametrical or linear shifting of the table top, the table top rests on the upper panel or intermediate member with freedom to slide relative thereto along a diameter that is the long dimension of the table top. For this purpose, either the table top member or the intermediate member is provided with a guide way, the other of the two members being slidably engaged with the guide way. In the preferred practice of the invention, the guide way is integral with the table top member and comprises two rails which are flanged to prevent separation of the two members. Rigidity of the table top member throughout this second range of linear movement is provided by spacing the two rails a substantial distance apart for stability and by further making the rails of adequate length to make the sliding engagement between the two members uniformly effective throughout the linear range.

The described arrangement of rigid base structure and two relatively movable parts may be readily constructed to function with low frictional resistance. Low resistance between pairs of relatively movable surfaces is minimized by coating at least one of the pairs of surfaces with wax or other friction-reducing substance. Reduced frictional resistance to linear movement is achieved in large part by using smooth metal rails.

Minimizing the development of looseness is achieved with respect to the pivotal movement by making the above mentioned studs adjustable so that the effective length of the headed studs may be shortened whenever required to compensate for wear. Minimum development of looseness with respect to the linear movement is obtained by making the flanged guide rails of suitable metal and by further dimensioning the guide rails to provide extensive areas for wear distribution.

The various features and advantages of the invention may be understood from the following detailed description together with the accompanying drawing.

In the drawing, which is to be regarded as merely illustrative:

Figure 1 is a top plan view of the presently preferred embodiment of the invention showing how the table top may be shifted to various positions relative to the adjacent booth structure;

Figure 2 is a sectional view taken along the line 2—2 of Figure 1 showing the manner in which the first panel pivotally supports the second or intermediate panel and the second panel slidably supports the table top;

Figure 3 is a fragmentary perspective view of adjacent corner portions of the two panel members showing the construction of a guide rail and a stop at the end thereof; and

Figure 4 is a perspective view of the table.

In Figure 1, which is based on the presently preferred construction of the invention, a table, generally designated by the letter T, is shown in its normal position in a booth having two side walls 10. In the usual manner the fixed structure of the booth includes a U-shaped seat, generally designated 12, which has a rear semi-circular portion 14 and two straight side portions 15.

The table T is of similar configuration in plan having a semi-circular rear edge 16 corresponding to the rear seat portion 14 and two straight side edges 18 corresponding to the straight portions 15 of the seat. The front edge 20 of the table is straight and is normally parallel with the front of the booth.

As may be seen in Figure 1, the edges 16 and 18 of the table top overhang the corresponding seat portions 14 and 15 by liberal margins for the comfort of the seated patrons and it is this overhang that makes it difficult for patrons to get into and out of the booth unless the table top is shifted to provide temporary entrance clearance.

The principal parts of the table construction are: a fixed base structure, generally designated 22, which includes a fixed top plate or first panel 24; an intermediate relatively movable part in the form of a second panel 25 that is pivotally mounted on the first panel; and a second movable part comprising a table top 26 that is slidable in a linear manner on the second panel 25.

In the construction shown, the fixed base structure 22 includes a heavy circular base member 28 which is usually anchored to the floor and further includes an upright tubular column or post 30 which is rigidly united with the base member. The first panel 24 which is part of the fixed base structure and which may comprise a rectangular piece of thick plywood. This first panel is rigidly mounted on the top of the tubular post 30 by means of a tubular bracket 32 having a horizontal top flange 34. The tubular bracket 32 is fixedly attached to the tubular post 30 by a pair of diametrically opposite screws 35 which are threaded into the tubular bracket and extend into corresponding bores 36 in the tubular post for positive engagement therewith. The top flange 34 of the tubular bracket 32 is fixedly secured to the underside of the first panel 24 by suitable wood screws 38.

For pivotally mounting the second panel 25 on the first panel 24, the first panel is provided with an upstanding headed stud in the form of a carriage bolt 40. The carriage bolt 40 extends completely through the first panel 24 and is provided on its lower end with a washer 42 and a nut 44 for positive engagement with the undersurface of the panel. Preferably the lower end of the carriage bolt is peened as indicated at 45 to prevent unscrewing of the nut 44.

The carriage bolt 40 extends through the second panel 25 to serve as a pivot therefor and the end of the carriage bolt seated in a recess 46 to avoid obstructing the upper surface of the second panel. The carriage bolt 40 permits free pivotal movement of the second panel 25 relative to the first panel 24 but is sufficiently tight to hold the faces of the two panels together.

In the construction shown, the first panel 24 has two diametrically opposite arcuate slots 48 of the circumferential extent shown in Figure 1 and the second panel

25 is provided with a corresponding pair of diametrically positioned headed studs 50 that extend downward through the two arcuate slots 48, respectively. The headed studs 50 cooperate with the arcuate slots to limit the range of pivotal movement of the table top 26 and have the further function of making the table top rigid by preventing local separation of the two panels.

In the construction shown, each of the headed studs 50 is in the form of a carriage bolt, the head of the carriage bolt being seated in a recess 52 to avoid obstructing the upper surface of the second panel 25. For the purpose of holding the two panels together, the lower end of each of the carriage bolts 50 is provided with a washer 54 and a nut 55, the washer being in sliding engagement 15 with the undersurface of the first panel 24. Preferably the lower ends of the two carriage bolts 50 are peened as indicated at 56.

The rails for slidably mounting the table top 26 on the second panel 25 may be fixedly mounted on either the table top or the second panel. In the construction shown, a pair of parallel rails 58 is mounted on the underside of the table top 26 in sliding engagement with the second panel 25. Each of the rails 58, which is preferably made of a smooth tough metal, has a horizontal top flange 60 20 for anchorage to the table top 26 and has a bottom flange 62 to engage the underside of the second panel 25 in a manner to prevent separation of the table top from the second panel. The top flange 60 is securely anchored to the table top 26 by suitable wood screws 64. As may be seen in Figure 2, the material of the second panel 25 is cut away or recessed to receive the two rails 58 with the top flange of the rails flush with the top surface of the panel and with the bottom flange 62 flush with the bottom surface of the panel.

Preferably stop means is provided to limit the linear relative movement of the table top 26. For this purpose, the two ends of each of the rails 58 may be formed with stop tongues 65 as best shown in Figure 3. By virtue of the stop tongues 65, the whole length of the second panel 25 is always engaged by the pair of rails 58 to maintain the desired rigidity of the table top throughout its range of linear movement. As may be seen in Figure 1, the two rails 58 are of substantially greater length than the second panel 25 to provide the desired range of linear movement of the table top. A metal or plastic rim 80 45 may be attached to the table top 26 to extend around the entire periphery of the table top and extend downward from the underside of the table top a predetermined distance. In some instances the tongues 65, or some of them may be eliminated with, and the sliding limits of the table top may be controlled by the engagement of the rim 80 with the panel 24.

The manner in which the table functions for its purpose may be readily understood from the foregoing description. With the table top in its normal position relative to the booth as shown in solid lines in Figure 1, it is a simple matter to swing the table top laterally about the axis of the stud 40 to the position indicated by the broken line 66 to form an entrance space on the right for a patron desirous of entering the booth. It is to be noted, however, that this entrance space does not extend a substantial distance into the booth. For the purpose of extending this entrance space all the way to the rear center of the booth seat, it is merely necessary to pull 65 the table top outward from the position 66 to the position indicated by the broken line 68. It is important to note that this shift from the position indicated at 66 to the position indicated at 68 is possible only because the two rails 58 may be swung about the axis of the pivot stud 40. If the linear movement occurred between the fixed first panel 24 and the second intermediate panel 25 instead of between the second intermediate panel 25 and the table top, with the pivotal movement occurring between the second panel 25 and the table top, it would not be possible to shift the table top to the position indi- 75

cated at 68. It would be possible, of course, to move the table top forward to the position indicated by the dotted line 70. With the present arrangement, the table top may be shifted to both of these positions 68 and 70.

The shifting of the table top to the position 68 opens up adequate entrance space to the whole of the semi-circular portion 14 of the booth seat. This procedure may then be repeated with the table top swung to the opposite side to provide space for patrons to enter the left side of the booth.

My description in specific detail of the presently preferred practice of the invention will suggest various changes, substitutions and other departures from my disclosure within the spirit and scope of the appended claims.

I claim:

1. A table including: a pedestal, an upwardly extending supporting post mounted on said pedestal, a first panel member, bracket means for fixedly mounting said first panel member on said supporting post, a second panel member, means for mounting said second panel member on top of said first panel member in pivotal relationship therewith, means for limiting the pivotal action between said first and second panel members, a table top, and a pair of elongated angle members affixed to said table top and adapted to engage opposite edges of said second panel to mount said table top on said second panel.

2. The combination defined in claim 1 in which said angle members each extend beyond said second panel to permit the table top to slide with respect to said second panel, and which includes means for limiting the sliding action of said table top with respect to said second panel.

3. A table including: a pedestal, an upwardly extending tubular post mounted on said pedestal, a first panel member, bracket means for mounting said first panel member on said supporting post, a second panel member, a stud means extending through said first and second panel members for supporting said second panel on said first panel in pivotal relationship therewith, one of said panels having an arcuate slot formed therein, a second stud means extending from the other of said panels into the slot in said one of the panels for limiting the pivotal action between said first and second panel members, a table top, a pair of slide members coupling said table top to said second panel to permit the table top to slide with respect to said second panel, and means for limiting the sliding action between said table top and said second panel.

4. A table including: a pedestal, an upwardly extending tubular post mounted on said pedestal, a first panel member having a central aperture and further having at least one arcuate slot extending therethrough, a tubular bracket for fixedly mounting said first panel member on said supporting post, a second panel member having a

central aperture, first stud means extending through said central apertures in said first and second panel members for mounting said second panel member on said first panel member in pivotal relationship therewith, second stud means extending through said second panel member into said arcuate slot in said first panel member for limiting the pivotal action between said first and second panel members, a table top, a pair of slide members affixed to the underside of said table top in spaced parallel relation and engaging opposite edges of said second panel to mount said table top on said second panel, said slide members each extending beyond an edge of said second panel to permit the table top to slide with respect to said second panel, and stop means for limiting the sliding action between said table top and said second panel.

5. A table including: a pedestal, an upwardly extending tubular post mounted on said pedestal, a first panel member having a central aperture and further having a pair of arcuate slots extending therethrough concentric with the central aperture therein, a bracket having a tubular portion for engaging the top of said post and having a disk-like portion, means for securing said disk-like portion of said bracket to the underside of said first panel, a second panel member having a central aperture, a first bolt extending through said central apertures in said first and second panel members for pivotally mounting said second panel on said first panel, a second and a third bolt extending through said second panel into respective ones of the slots in said first panel for limiting the pivotal action between said first and second panels, a table top having an arcuate shaped peripheral portion, a pair of slide members affixed to the underside of the table top in spaced parallel relation and engaging opposite edges of said second panel to mount said table top on said second panel, said slide members each extending beyond the edge of said second panel to permit the table top to slide with respect to said second panel, one end of each of said slide members having a bent-over extremity to limit the sliding action between said table top and said second panel in one direction, and said table top having a downwardly extending rim which limits such sliding action in the other direction.

References Cited in the file of this patent

UNITED STATES PATENTS

| | | |
|-----------|------------|---------------|
| 2,307,396 | Draxler | Jan. 5, 1943 |
| 2,332,291 | Binz | Oct. 19, 1943 |
| 2,360,474 | Cederquist | Oct. 17, 1944 |
| 2,396,242 | Binz | Mar. 12, 1946 |
| 2,498,558 | Lantz | Feb. 21, 1950 |
| 2,587,098 | Binz | Feb. 26, 1952 |
| 2,659,641 | Draxler | Nov. 17, 1953 |
| 2,723,891 | Draxler | Nov. 15, 1955 |