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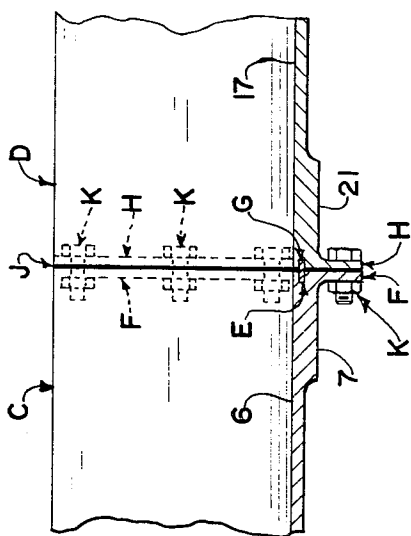
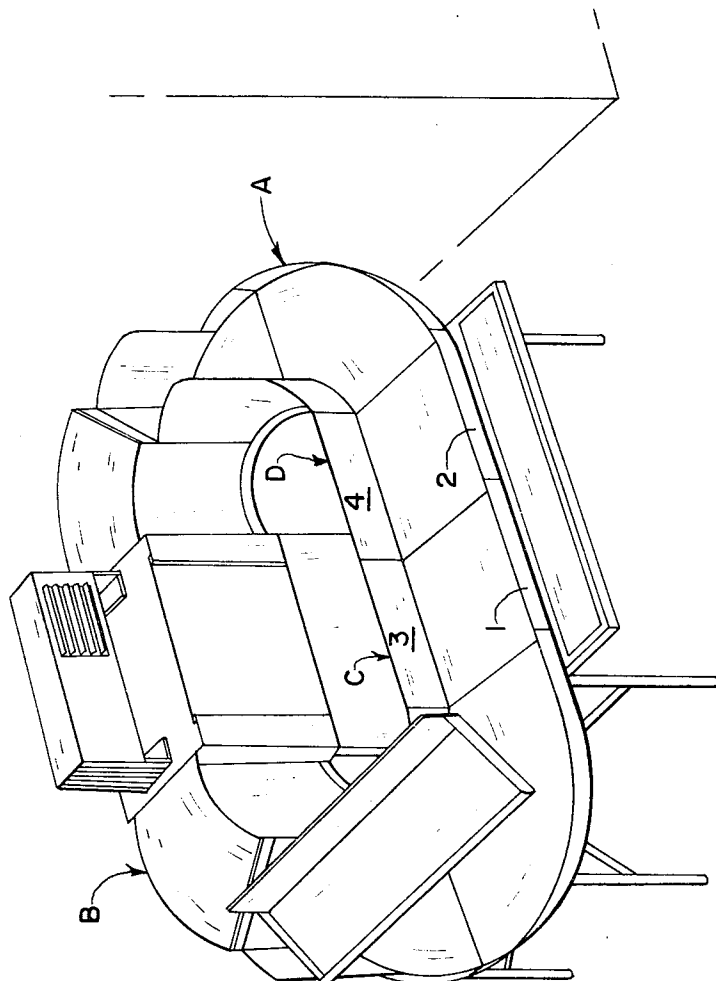
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SECTIONAL OVAL-SHAPED TABLE WITH SIDE WALLS AND U-SHAPED
TONGUES INTERCONNECTING ADJACENT SECTIONS

Filed Aug. 19, 1968

2 Sheets-Sheet 1



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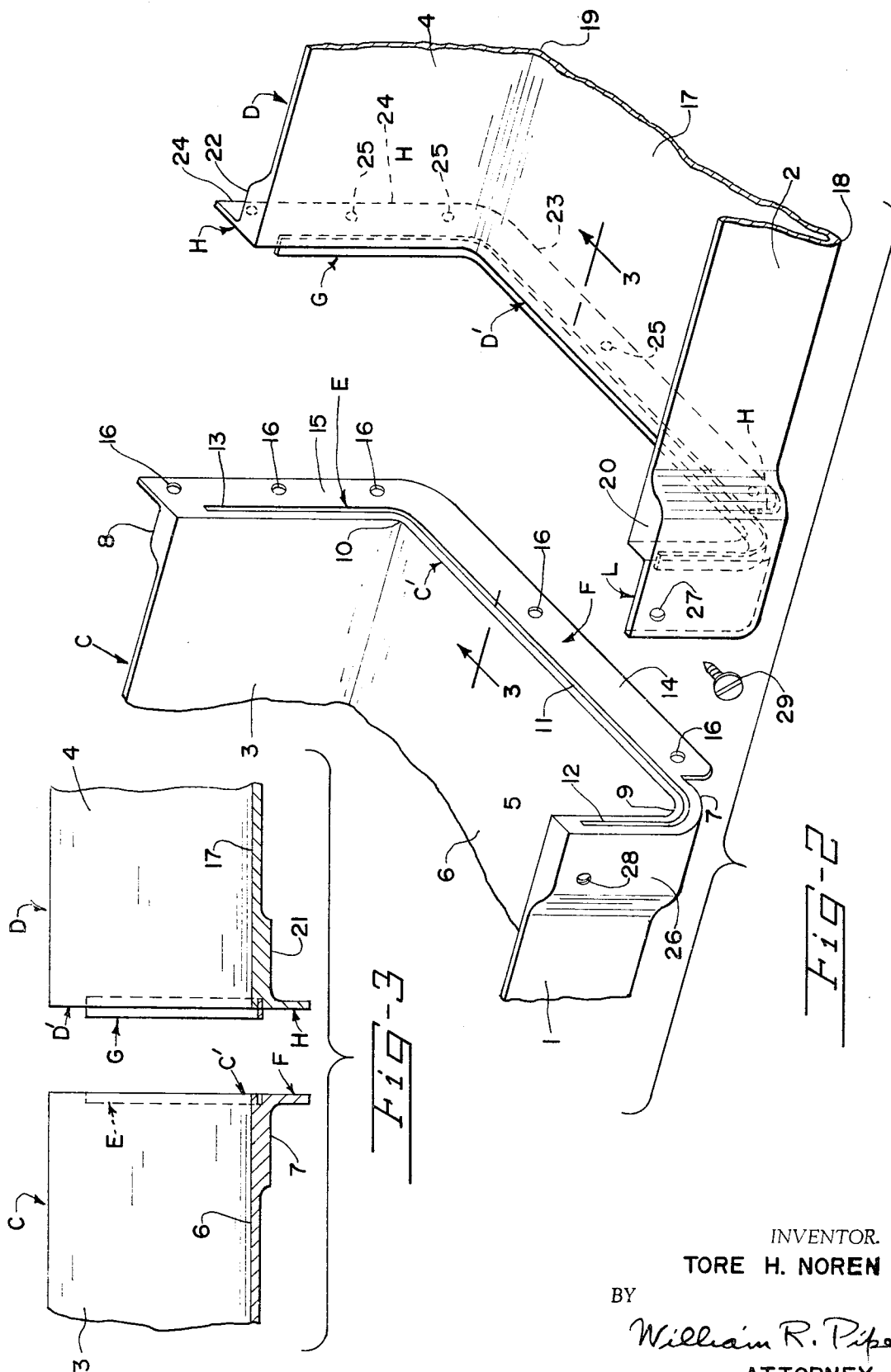
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4 Claims

ABSTRACT OF THE DISCLOSURE

An oval-shaped table is used in conjunction with some commercial dishwashers for guiding the dishwashing trays therethrough. The table has sidewalls and is large so it is formed in sections. I have found that each section if provided with a U-shaped tongue at one end and a U-shaped groove in the other end with the sides of the groove extending into the table section sides, a joining of adjacent sections together will make a better waterproof joint between the sections because the sides of the U-shaped tongue will be received in the groove sides of the adjacent section. The sections are removably connected together and form watertight joints.

CROSS REFERENCE TO RELATED APPLICATION

In my copending patent application on a sectional oval-shaped table for endless conveyor for dishwasher, Ser. No. 632,093, filed Apr. 19, 1967, now U.S. Pat. No. 3,447,491 I disclose each section of the table as being provided with a tongue at one end of the section and a tongue-receiving groove at the other end. The table section has a flat portion bounded by two upwardly extending sides. The tongue has a width substantially equal to the width of the flat portion and the tongue-receiving groove is about the same size. I have found that by extending the tongue in my present invention up along both sides of the table section and by providing a similarly shaped groove in the end of the adjacent section, a better joint is made when the two sections are joined together, the joint being stronger, more rigid and more waterproof because the table section sides have a tongue and socket joint with the abutting sides of the adjacent sections.

BACKGROUND OF THE INVENTION

Field of the invention

The oval-shaped table supports an endless train of dish-carrying dollies that convey the dishes through the dishwasher for washing them. The table is large and cannot readily be moved unless divided into sections. It is difficult to form watertight joints between adjacent sections and the practice has been to weld the sections together at the place where the dishwasher is located. Then later if the oval table needs to be enlarged or moved to another location it becomes necessary to use a torch to again separate the table sections. I provide a novel watertight joint between adjacent sections that permits the sections to be assembled without the necessity of welding and readily disassembled without the need of a torch.

Description of the prior art

The patent to Carl E. Spring, No. 3,001,844, issued Sept. 26, 1961, is for a cabinet structure. Two cabinets are disclosed and each has a top plate with an upwardly extending back portion and a downwardly extending front

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portion. The two cabinets are placed side by side and the adjacent edges of the two top plates abut each others. A flange is provided directly under the portion of each top plate that abuts the other top plate and the flanges are spaced below the top plates to form a common recess that receives a connecting strip. The strip extends under both top plates but does not extend up into the back portions of the top plates nor down into the downwardly extending portions of the two plates.

SUMMARY OF THE INVENTION

An object of my invention is to provide a sectional oval-shaped table with side walls in which each section has a U-shaped tongue at one end and a tongue-receiving U-shaped groove at the other end. The sides of the U-shaped groove extend up into the two side walls of the section and when the U-shaped tongue of the adjacent section is received in the groove, a rigid connection is made between the two sections and the liquid tight joint formed by the connection extends up along both side walls. Bolts are used for holding the two sections together and these may be removed when it is desired to free the sections from each other.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the oval-shaped sectional table when used in connection with a dishwashing machine.

FIG. 2 is an enlarged isometric view of the adjacent ends of two separated table sections.

FIG. 3 is a longitudinal section taken along the line 3—3 of FIG. 2.

FIG. 4 is a longitudinal section similar to FIG. 3, but shows the two sections interconnected and secured together by bolts.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In carrying out my invention I provide an oval-shaped table A that is used in connection with a dishwashing machine, indicated generally at B, in FIG. 1. In my copending application on a dolly conveyor for a dishwasher Ser. No. 707,565, filed Feb. 23, 1968, I disclose how the oval sectional table supports an endless train of interconnected dish-carrying dollies and novel means is provided for intermittently moving the train so that an attendant is given time to place a basket of soiled dishes on a dolly while the latter is at rest. The dishes are successively loaded onto the dollies and are then moved through the dishwasher that washes and rinses them.

A different type of endless train of dish-carrying dollies is shown in another copending application of mine entitled endless conveyor for a wishwasher with links interconnecting adjacent dollies, Ser. No. 730,019, filed May 17, 1968. An oval-shaped sectional table is shown in this case. The manner of joining the table sections together by bolts to form liquid tight joints is disclosed in my copending application Ser. No. 632,093, previously referred to, and in my present case.

The table top sections, whether linear or arcuate in shape, are all provided with an outer wall or side that is of a less height than the inner wall or side. Two adjacent linear table sections C and D are shown in FIG. 2, 3 and 4 and a detailed description of these will suffice for all of the linear sections as well as the arcuate sections. The outer wall or side 1 of the linear section C is of the same height as the outer wall or side 2 of the

linear section D. In like manner the inner wall or side 3 of the linear section C is of the same height as the inner wall or side 4 of the linear section D. The wall or side 1 of the section C is made thicker near the end C' of the section as shown at 5 in FIG. 2 and this thickened end portion extends along the horizontal part 6 of the section as shown at 7 in FIGS. 3 and 4. The wall or side 3 of the section C is also made thicker at 8 as indicated in FIG. 2 and, therefore, the entire end portion C' of the section C is made thicker by the integral parts 5, 7 and 8 that merge into each other and provide a transversely extending band for reinforcing the section.

The thicker end C' of the section C serves two purposes: (1) to provide a reinforced end that makes the end C' stronger; and (2) to provide sufficient thickness so that a U-shaped tongue-receiving groove E can be formed in the thickened portion, see FIG. 2. There is a slight curve 9 at the juncture of the outer wall 1 with the horizontal part 6 and there is also a slight curve 10 at the juncture of the inner wall 3 with the same horizontal part 6. This is for the purpose of doing away with any sharp corners where dirt might collect. Also the curved corners 9 and 10 permit more ready cleaning of the section C. The U-shaped groove E also has curved portions that interconnect the horizontal part 11 of the groove with the vertical parts 12 and 13.

It will also be seen from FIG. 2 that an L-shaped flange F has a downwardly extending portion 14 that is integral with the thickened portion 7, and an outwardly extending portion 15 that is integral with the vertical thickened portion 8 of the inner wall 3. This flange F is provided with holes 16 that are spaced apart and are adapted to receive bolts which will be described hereinafter. The outer face of the flange F lies in a plane that extends at right angles to the planes of the horizontal part 6 and the inner wall 3 of the section C.

The linear section D has a horizontal portion 17 that lies between the outer wall 2 and the inner wall 4, see FIG. 2. A rounded corner 18 is provided between the outer wall 2 and the horizontal portion 17 and another rounded corner 19 is provided between the portion 17 and the vertical inner wall 4. The section D is provided with a thickened wall portion adjacent to the end D' that is similar to the thickened wall portions 5, 7 and 8 of the linear section C. The outer wall 2 of the section D has a thickened portion 20 that merges into a thickened portion 21 of the horizontal part 17, see also FIGS. 3 and 4. The latter portion 21 merges into a thickened portion 22 of the inner wall 4. These three thickened portions 20, 21 and 22 form a transverse reinforcing band. A U-shaped tongue G has its inner edge embedded in the thickened portions 20, 21 and 22 of the linear section D, and the tongue projects beyond the adjacent end D' of the section. The tongue G is of a size and shape to be received in the U-shaped groove E when the two sections C and D are brought into abutting relationship. The groove E is slightly larger than the tongue G so that a layer of mastic can be applied to all surfaces of the tongue and this layer will aid in forming a liquid tight joint when the two sections are brought together and the tongue is received in the groove E.

The linear section D is also provided with an L-shaped flange H, see FIGS. 2, 3 and 4, that has a downwardly extending portion 23 which is integral with the thickened portion 21 and an outwardly extending portion 24 that is integral with the thickened portion 22 of the inner wall 4. The flange H has bolt-receiving openings 25 therein that will register with the bolt holes 16 in the flange F when the two sections are interconnected and the flange H will abut the flange F. A layer of mastic J, shown by the heavy vertical line in FIG. 4, is applied between the abutting surfaces of the flanges F and H and this mastic surrounds the tongue for making a liquid tight joint between the interconnected sections C and D. In FIG. 4, I show bolts K inserted in the aligned openings 16 and 25 of the flanges F and H and securing the two sections together. No weld-

ing is necessary to make the joint between the sections watertight and the sections may be disconnected at any time without the need of a torch to sever them.

It will be noted from FIG. 2 that the section D has an extension L that is integral with the thickened portion 20 and projects beyond the end D. This extension laps the outer surface 26 of the thickened portion 5 of the outer wall 1 when the two sections C and D are brought together.

The extension L has an opening 27 therein which aligns with a threaded bore 28 in the thickened portion 5 when the two sections are interconnected and a cap screw 29, shown in FIG. 2, is passed through the opening 27 and threaded into the bore 28 as a further connection between the two sections. The extension L makes a flat connection between the outer walls 1 and 2 of the two sections C and D and takes the place of extending the flanges F and H up along the outer surfaces of the walls 1 and 2. A more finished appearance to the outer table wall formed by the joined wall sections 1 and 2 is thereby provided.

It should be kept in mind that each table section C and D is provided with a groove E at one end and with a tongue G, at the other end. This is true of both linear and arcuate sections. The sections can be interconnected to form oval-shaped tables of different lengths and widths and also to form other types of tables such as ones triangular in shape.

I claim:

1. A sectional table top including at least a first section and a second section abutting each other, each section having a flat upper surface with upwardly extending and spaced apart parallel sides, the sides of one section abutting the corresponding sides of the other section;
 - (a) said first section having a U-shaped tongue-receiving groove at one end, the groove having a portion paralleling the flat upper surface of the section and having end portions that extend upwardly along said parallel sides of the section;
 - (b) said second section having a U-shaped tongue at one end and adapted to be received in said groove when the two sections are brought into abutting relation, there being a slight space between all surfaces of the tongue and the adjacent surfaces of the groove so as to receive a mastic;
 - (c) a layer of mastic lying between the abutting portions of the two sections and filling the space between the U-shaped tongue and the U-shaped groove for making a water-tight seal between the sections; and
 - (d) means for removably connecting the sections together, the U-shaped tongue aiding in making a water-tight seal between the flat upper surfaces and the adjacent sides of the two sections and also aiding in making a rigid connection between them.
2. The combination as set forth in claim 1: and in which
 - (a) the end portions of the flat upper surface and the parallel sides of said first section that have the U-shaped groove therein are made thicker to provide a reinforcing and transversely extending band at the groove-receiving end of the section; and
 - (b) the end portions of the flat upper surface and the parallel sides of said second section that have the U-shaped tongue are also made thicker to provide a reinforcing and transversely extending band at the section end that has the tongue.
3. The combination as set forth in claim 1: and in which
 - (a) the groove-receiving end of said first section has an L-shaped flange with a portion extending downwardly below the groove portion that underlies the flat top surface of said section, the flange also having a portion extending outwardly beyond the outer surface of one of the section sides;
 - (b) the tongue end of said second section having an L-shaped flange of the same size and shape as the first-mentioned flange and having a portion extending

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downwardly below the tongue portion that parallels the flat top surface of said second section, the flange also having a portion extending outwardly beyond the outer surface of the second section side that is in alignment with the first section side carrying a portion of the first-mentioned flange; and

(c) the means for removably connecting the sections together including bolts that secure the two L-shaped flanges together.

4. The combination as set forth in claim 3: and in which

(a) the side of said second section that lies opposite the side provided with the outwardly extending flange portion, has an integral extension that overlaps a portion of the adjacent side of said first section when the two sections abut each other; and

(b) means for securing said extension to the portion of the side it overlaps.

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References Cited

UNITED STATES PATENTS

942,014	11/1909	Schneider, et al.	
2,403,338	7/1946	Butler	108—64
2,464,160	3/1949	Stanitz	312—228
2,806,624	10/1957	Sullivan	52—584 XR
2,905,334	8/1959	Gottschalk, et al.	211—135
2,956,288	10/1960	Nolan	4—189
2,992,001	7/1961	Ferris	52—593 XR
3,167,187	1/1965	Sarkisian	108—97 XR
3,447,491	6/1969	Noren	108—64

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