Jan. 13, 1959 W. A. GIBSON ET AL 2,868,604

CENTERING CLIP

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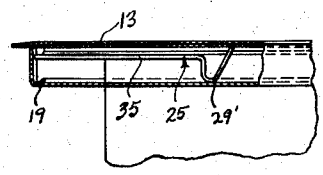


FIG. 5

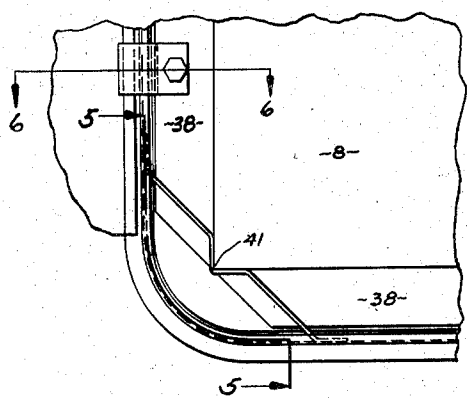


FIG. 4

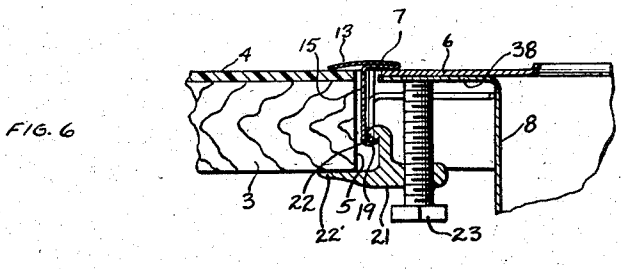


FIG. 6

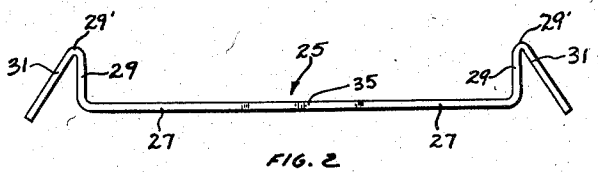


FIG. 2

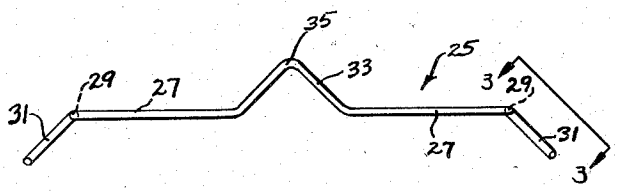


FIG. 1



FIG. 3

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CENTERING CLIP

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6 Claims. (Cl. 312—140.1)

This invention relates to cabinet structure and more particularly to a novel spring clip for maintaining the proper spacing of associated parts when they are assembled with a cabinet, and is particularly useful in conjunction with the assembly of range tops in so-called custom built kitchen installations.

A modern cooking range or similar structure usually comprises a plurality of panels or plates that are individually fabricated and which are subsequently assembled into the desired position within openings formed in a cabinet structure.

As is most often the case, the complete range cabinet or the like may have associated panel members that are mismatched or slightly spaced one from the other, resulting in possible relative movement therebetween and producing subsequent breakage or permanent disfigurement. When these panels are assembled in the so-called "custom built" installation where a cabinet is provided with an opening for the reception of individual heat dispensing units or a range top or platform, the opening normally varies in size and is always larger than said inserted members hence it is desirable that means be provided to center the panel within the opening.

The spring clip of the present invention enables the use of cabinets with openings having a greater deviation from the desired size than was heretofore practical, and also resiliently interconnects said panel members to said cabinet structure to result in a more sturdy and strengthened device.

Another advantage of the clip of the present invention is that it is very simple in configuration and is therefore economical to manufacture.

Still other advantages of the invention and a more complete understanding thereof will be realized upon reference to the following disclosure and accompanying drawings wherein:

Figure 1 is a top plan view of the spring clip of the present invention;

Figure 2 is a view of the spring clip of Fig. 1 rotated 90°;

Figure 3 is a fragmentary view showing one end of the spring clip of Fig. 1;

Figure 4 is a fragmentary bottom plan view showing a cabinet structure utilizing the spring clip of the present invention;

Figure 5 is a sectional view taken along the line 5—5 of Fig. 4; and

Figure 6 is a fragmentary sectional view, taken along the line 6—6 in Fig. 4, of a cabinet structure utilizing a sealing and trim strip adaptable for use with the spring clip of the present invention.

Referring now to the drawings, throughout which like elements are designated by like reference characters, in Fig. 6 there is illustrated a portion of a cabinet structure, such as that commonly known as a "custom built" range, comprising a base 3 usually constructed of wood and which may be surmounted by a layer of hard fibrous material 4 having suitable heat resistive properties. The

cabinet may be formed with one or more openings 5 into which the frames or panels 6 that support heat dispensing units are disposed, wherein a clearance 7 may exist between the periphery of the frame and the edges of said opening. The frames may support a plurality of heat units, usually four, although they may be in groups of two, and, separate frames provided for each group. A drip pan 8 may be placed below each frame and its heat units, arranged to catch waste cooking oils or other foreign matter that may fall therethrough. The drip pan 8 may also be formed integrally with the frame 6 by means well known in the art.

A sealing and trim strip, substantially T-shaped cross-sectionally, having a curved horizontal bar 13 and a depending vertical leg 15 with the bottom edge turned upwardly and defining a trough or flange 19, completely encircles and provides the main support for the frame 6 and, when used, the pan 8 within the opening 5. The leg 15 is disposed within clearance 7 between frame 6 and the edges of said opening. A locking plate 21 having a hook 22 engaged in the trough 19 is provided. This locking plate has a laterally extending part 22′ engaging the bottom surface of base 3 adjacent to the opening 5 and an oppositely disposed end projecting in spaced relation below the rim of the frame 6. A screw 23, in threaded engagement in an opening in the plate 21, extends upwardly into pressure engagement with the underside of pan 8 and tends to pivot said plate 21 downwardly about the end 22′ which engages the bottom surface of base 3, whereby pressure is applied to the flange 19 and the strip 13 is forced downward into tight engagement with the top 4. At the same time, screw 23 forces the pan 8 and frame 6 upwardly into engagement with the underside of strip 13 to resiliently secure said frame 6 and the attached pan 8 in an operative position. The horizontal bar 13 of the strip engages the upper surface of the frame 6 and the surmounting material 4 on base 3, effectively bridging and sealing the clearance 7 therebetween.

The spring clip 25, Figs. 1–3, comprises an elongated rod-like body 27 formed of suitable resilient material, such as spring wire, and has arm members 29 extending substantially perpendicularly downward on each end thereof. The extremity of each arm member is then bent upward and outward to form a hook 31. A substantially V-shaped part 33 having an apex portion 35 is formed in the body 27 intermediate the arms 29, and extends outward longitudinally at the opposite side of the body 27 from the hooks 31.

On assembly of the cabinet structure, the supported unit 6, 8 is placed into each opening 5, Fig. 6, with the drip pan 8 extending downward, and is loosely secured therein by means of strip 13 and the associated locking plate 21 and screw 23.

A plurality of spring clips 25, only one being shown in Fig. 4, are placed under the peripheral horizontal rim or flange 38 of the drip pan 8 in such manner that the V-shaped arch 33 of each clip embraces each corner 41 of said pan 8. The remaining portion of the body 27 of the clip extends under the rim or flange 38 of the drip pan 8 and across the clearance 7 to position the arms 29 in juxtaposition to adjacent portions of the depending vertical leg 15 on the trim strip.

The hook portion 31 on each arm 29 is then disposed with the bight 29′ in the trough 19 on leg 15, resulting in a force being transmitted through each arm to the arch 33 in the direction of the center of the supported unit 6, 8 which tends to hold said unit centered within the opening 5. The end of the hook 31 engages with the underside of the trim strip and exerts pressure thereon. The resultant action of each spring clip in association

with each corner 41 of pan 8, acts to centrally position said supported unit 6, 8 within the opening 5.

It is also conceivable, that the clearance 7 may be irregular about the periphery of the frame 6 so that only one spring clip 25 need be utilized, but it has been found desirable to use two or more of said clips, preferably one for each corner.

The pan 8 may also be formed with outwardly extending teeth (not shown) spaced about the periphery thereof and arranged to engage said arch portion of said clips whereby support may be provided about said periphery wherever desired.

Having thus described our invention it is realized that numerous departures may be made therefrom without departing from the scope of the appended claims.

We claim:

1. A spacer clip comprising a resilient elongated rod-like body having a longitudinally extending arch formed therein intermediate its ends which is offset laterally to one side of the body, said rod-like body at each end having an arm member which extends from the body substantially perpendicular to the plane of said laterally offset arch and which has a hook portion formed on its extremity protruding laterally at the opposite side of said body.

2. In combination with a supported member having a corner and an encircling strip member having a leg adjacent the periphery of said supported member, centering means therebewteen comprising at least one resilient clip having a rod-like body with a laterally offset arch portion intermediate the ends thereof in engagement with the corner of said supported member, said clip having arm members formed on the ends of said body in engagement with said strip member at the opposite sides of said corner.

3. In combination with a supported member having a corner and an encircling strip member having a leg adjacent the periphery of said supported member, a flange formed on the end of said leg, centering means between said supported member and said strip member comprising at least one resilient clip having a rod-like body with a laterally offset arch portion intermediate the ends thereof in engagement with the corner of said supported member, said clip having arm members formed on the ends of said body extending outwardly therefrom and into engagement with said flange at the opposite sides of said corner.

4. A centering clip for use with a trim strip for centrally positioning a supported member having a plurality of corners in an opening of a cabinet wherein the trim strip is provided with an upper portion disposed over and closing the opening between the cabinet and the supported member and a leg extending downwardly between the edge of said opening and the periphery of said supported member, having a flange formed on the lower end thereof to define a trough, comprising a rod-like body having a longitudinally extending laterally offset arch intermediate the ends thereof in engagement with a respective corner of said supported member, arm means formed on the opposite ends of said body extending substantially perpendicular thereto and terminating in upwardly extending hook portions seated in said trough at opposite sides of the respective corner and operable to flex said arch into resilient engagement with the respective corner of said supported member.

5. A spacer clip comprising a resilient elongated rod-like body having intermediate its ends an arch which is offset laterally to one side of the body and defines a V-shaped recess open at the opposite side of the body, said body at its opposite ends having arms which extend down from the body and at their lower ends are bent upward and angularly outward at said opposite side to provide upwardly and outwardly extending extremities which are disposed at said opposite side of the body.

6. In combination with a supported member having a corner and an encircling strip member having a leg adjacent the periphery of said supported member, an upwardly extending flange formed on the end of said leg defining trough means, centering means between said supported member and said strip member comprising at least one resilient clip having a rod-like body with a longitudinally extending offset arch formed thereon intermediate the ends thereof and in engagement with said corner of said supported member, and arm members formed on the opposite ends of said body extending outwardly therefrom and disposed in said trough means at the opposite sides of said corner and being operable to flex said arch toward said supported member.

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