

Feb. 7, 1961

M. E. ULLMAN, JR
COUNTER TOP CONSTRUCTION

2,970,872

Filed Jan. 2, 1958

4 Sheets-Sheet 2

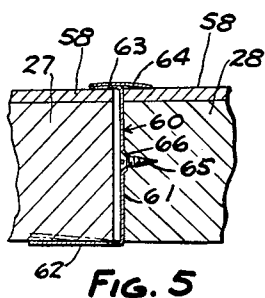


FIG. 5

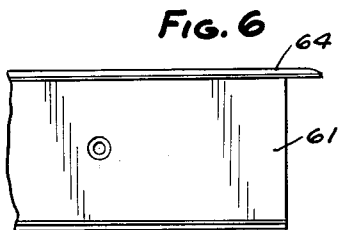


FIG. 6

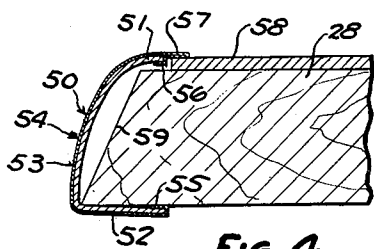


FIG. 4

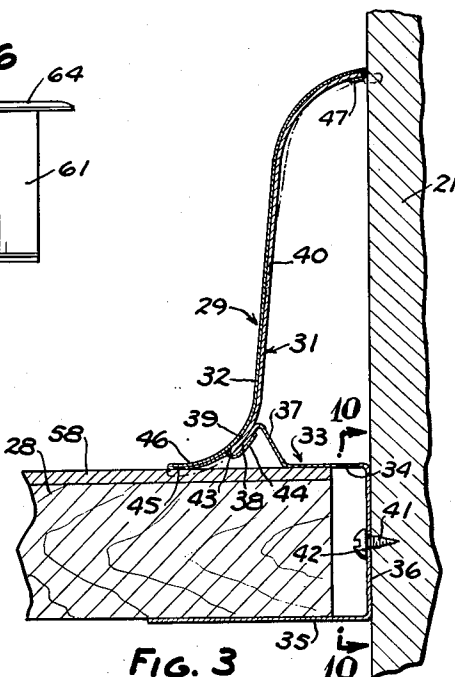


FIG. 3

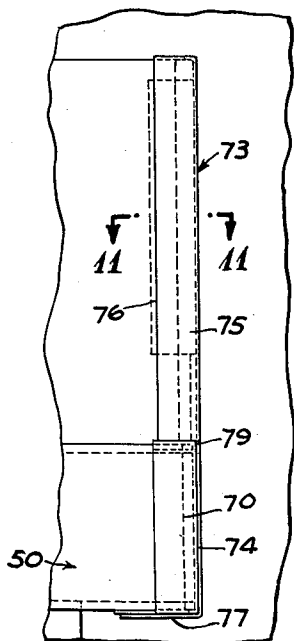


FIG. 8

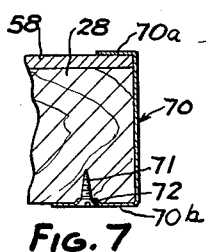


FIG. 7

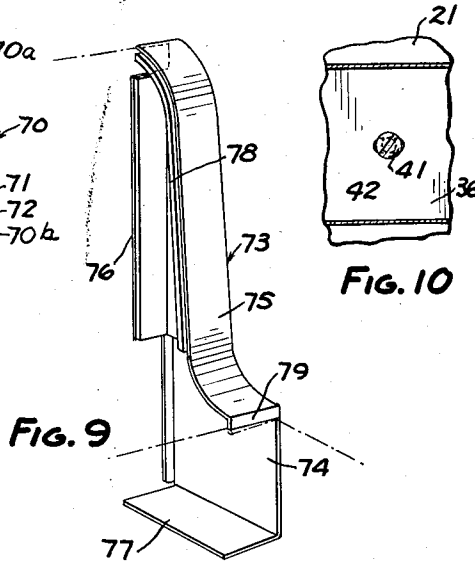


FIG. 9

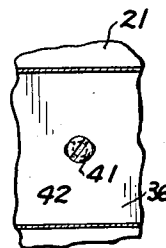


FIG. 10

INVENTOR.
MYRON E. ULLMAN, JR.

BY

Barnes, Kissell, Laird & White
ATTORNEYS

Feb. 7, 1961

M. E. ULLMAN, JR

2,970,872

COUNTER TOP CONSTRUCTION

Filed Jan. 2, 1958

4 Sheets-Sheet 4

FIG. 15

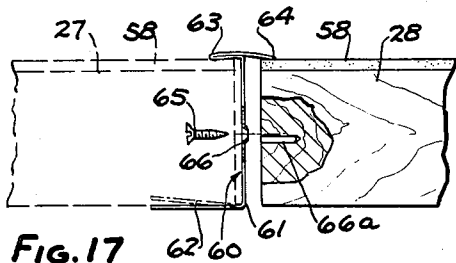
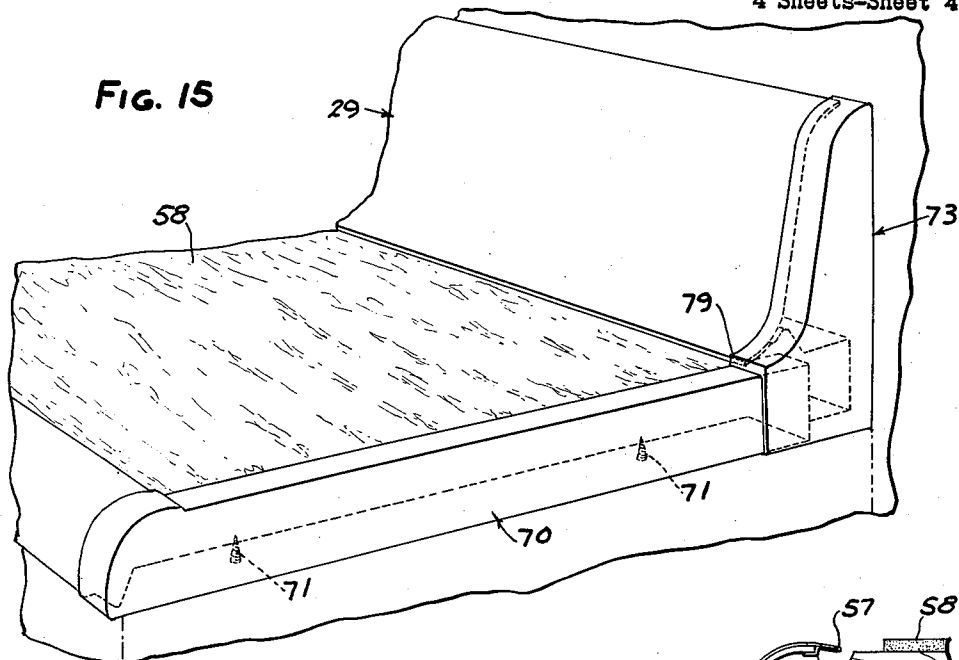


FIG. 17

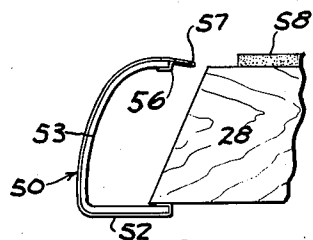


FIG. 16

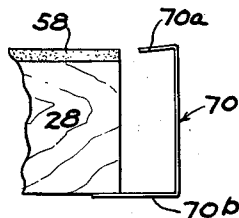


FIG. 18

INVENTOR.
MYRON E. ULLMAN, JR

BY

Barnes, Kissell, Leisch & Plante
ATTORNEYS

1

2,970,872

COUNTER TOP CONSTRUCTION

Myron E. Ullman, Jr., Canfield, Ohio, assignor to American Radiator & Standard Sanitary Corporation, New York, N.Y., a corporation of Delaware

Filed Jan. 2, 1958, Ser. No. 706,661

11 Claims. (Cl. 311-107)

This invention relates to a counter top construction and particularly to counter top constructions for domestic kitchens and the like.

In the present-day design of cabinets and other appliances utilized in kitchens, it is customary to provide a counter top on the appliance which may be used as a work surface. When such a cabinet is pushed against the wall of a room, it is desirable to provide a sealed joint between the surface of the counter top and the wall in order to prevent dirt, liquids and other foreign material from flowing behind the cabinet between the wall and the cabinet.

In an effort to provide this seal it has been suggested that a back splash unit be mounted on the counter top. When the cabinet having this back splash unit thereon is pushed against the wall to bring the back splash unit into contact with the wall, it often happens that the front end of the counter top is out of alignment with the front end of adjacent counter tops on adjacent cabinets. Alternatively, complex sealing constructions may be used between the rear edge of the counter top and the wall.

It is an object of this invention to provide a counter top construction wherein the back splash is provided by a back-aligning member which accommodates to the variations and deviations in the wall, thereby permitting the front edges of the adjacent cabinets to be maintained in alignment.

It is a further object of this invention to provide a novel construction for sealing adjacent side edges of counter tops.

It is a further object of this invention to provide a novel construction for sealing the free end edges of counter tops.

It is a further object of this invention to provide a novel construction for sealing adjacent rear edges of counter tops at a corner of a room.

It is a further object of this invention to provide a counter top construction which is pleasing in appearance.

It is a further object of this invention to provide such a counter top construction which may be easily manufactured.

In the drawings:

Fig. 1 is a fragmentary plan section of a corner of a room having a counter top construction embodying the invention.

Fig. 2 is a plan view on a slightly enlarged scale of a modified form of the invention.

Fig. 3 is a fragmentary sectional view on a greatly enlarged scale taken along the line 3-3 in Fig. 1.

Fig. 4 is a fragmentary sectional view on a greatly enlarged scale taken along the line 4-4 in Fig. 1.

Fig. 5 is a fragmentary sectional view on a greatly enlarged scale taken along the line 5-5 in Fig. 1.

Fig. 6 is a fragmentary elevational view on a part of the sealing unit shown in Fig. 5.

Fig. 7 is a fragmentary sectional view on a greatly enlarged scale taken along the line 7-7 in Fig. 1.

2

Fig. 8 is a front elevational view of the right-hand portion of the cabinet construction shown in Fig. 1.

Fig. 9 is a perspective view of an end cap used in the invention.

Fig. 10 is a fragmentary sectional view taken along the line 10-10 in Fig. 3.

Fig. 11 is a fragmentary sectional view on an enlarged scale taken along the line 11-11 in Fig. 8.

Fig. 12 is a perspective view of a corner piece used in the counter top construction.

Fig. 13 is a fragmentary sectional view taken along the line 13-13 in Fig. 12.

Fig. 14 is a fragmentary sectional view on an enlarged scale taken along the line 14-14 in Fig. 2.

Fig. 15 is a fragmentary perspective view of a portion of the right end of the counter construction shown in Fig. 1.

Fig. 16 is a fragmentary sectional view similar to Fig. 4 showing the relative relationship of the parts during assembly.

Fig. 17 is a fragmentary sectional view similar to Fig. 5 showing the relative relationship of the parts during assembly.

Fig. 18 is a fragmentary sectional view similar to Fig. 7 showing the relative relationship of the parts during assembly.

Referring to Fig. 1, a room 20 comprises a side wall 21 and an end wall 22 which form the corner of a room. Cabinets 23, 24, 25 are positioned in the corner. The cabinets support and have rigidly fixed thereto counter tops 26, 27, 28, respectively. A back-aligning member 29 along the side wall 21 and a back-aligning member 30 along the end wall 22 provide a seal between the rear edges of the counter tops and the walls to prevent liquid and other foreign material from passing between the cabinets and the walls.

Back-aligning members 29, 30 are of identical construction and, for purposes of clarity, only the construction of aligning member 29 will be discussed.

Referring to Fig. 3, back-aligning member 29 is generally S-shaped and comprises a first part 31 and a second part 32. Part 31 is made from a thin sheet of material and comprises a U-shaped portion 33 having a short longitudinally extending upper leg 34, a long longitudinally extending lower leg 35 and a vertical base 36 connecting the legs 34, 35. A short first section 37 extends upwardly and forwardly from the front end of leg 34. A second section 38 extends downwardly and forwardly from the end of first section 37. A third section 39 extends upwardly and rearwardly in contact with the second section 38 and a fourth section 40 extends upwardly from the rear end of section 39 and is curved rearwardly.

As shown by the dotted lines in Fig. 3, the free end of the fourth section 40 normally lies in the vertical plane spaced rearwardly from the plane of the vertical base 36. However, the section 40 has sufficient flexibility so that it is flexed when the member 29 is mounted on a wall as by a screw 41 passing through an opening 42 in vertical base 36. The nose 43 formed by the bend connecting sections 38 and 39 is spaced above the plane of the short leg 34.

Second part 32 of back-aligning member 29 is made of thin sheet material having a lesser thickness than part 31 and comprises a first portion 44 extending downwardly and forwardly. This portion 44 underlies and is in contact with section 38 of part 31. Part 32 also includes a second portion 45 extending downwardly and forwardly from the forward end of the first portion 44, a third portion 46 extending rearwardly and upwardly from the forward end of the second portion. The third portion 46 has the first part thereof in contact with the second

portion 45 and the remainder thereof in contact with the third and fourth sections 39, 40 of part 31.

The upper end 47 of the second part 32 is bent over the free end of section 40 of part 31. Part 32 is made of flexible material. Before the rear edge of counter top 28 is inserted in U-shaped portion 33, the portions 45, 46 of part 32 are in their untensioned state and extend downwardly so that the distance between the lowermost part thereof and the lower leg 35 is less than the distance between the upper leg 34 and the lower leg 35. When the rear edge of counter top 28 is inserted into the U-shaped portion 33, portions 45, 46 of part 32 are flexed upwardly to the solid line position thereby providing a seal between these portions and the upper surface of the counter top.

In assembly the base cabinets 26, 27, 28 are placed in position in the corner of the room and fastened together. The back trim members 29, 30 are then secured to the walls 21, 22, respectively, at the proper height. The back-aligning members 29, 30 will flex to accommodate to variations in the surfaces of their respective walls. The counter tops are then placed on top of the cabinets and pushed into the U-shaped portions of their respective back-aligning members. During this operation the portions 45, 46 of back-aligning member 29 are flexed upwardly, thereby providing a seal with the upper surfaces of the counter tops 27, 28. The front edges of the counter tops are aligned with the faces of the cabinets without regard to the flatness of the walls. In order to align the front edges, it may be necessary to push one counter top into the U-shaped portion of the back-aligning member further than another counter top. After being aligned the counter tops are fastened to the top of the cabinets. Thus, not only is a seal provided between the rear edges of the counter tops and the wall, but at the same time the forward edges of the counter tops may be maintained in the proper alignment.

A strip 50 is provided along the front edges of the counter tops as shown in Figs. 4 and 16 and is generally U-shaped and has a short upper leg 51 and a long lower leg 52 connected by an arc 53 extending upwardly and rearwardly. A finishing strip 54 of thin generally flexible material is provided over the strip 50, one end 55 of this strip being turned over the free end of the leg 52. A portion of the finishing strip 54 intermediate the end 56 and the center portion thereof is folded against itself to form a flexible lip 57.

As shown in Fig. 16 lip 57, in the untensioned state, that is, before the strip 50 is placed over the forward edge of the counter top, normally extends downwardly at a slight angle so that when the strip 50 is placed over the forward edge of a counter top, the lip 57 is flexed upwardly and forms a seal with the upper surface of the counter top. As shown in Figs. 3 and 4 the counter 28 may include a layer 58 of more durable material which, as shown in Fig. 4, terminates rearwardly of the front inclined edge 59 of the counter to provide a space into which the free edge of upper leg 51 projects.

A sealing strip 60 is provided between adjacent counter tops as shown in Figs. 5, 6 and 17 and comprises a central generally vertical portion 61, a lower generally horizontal arm 62 and an upper generally horizontal arm including a first section 63 and extending in the same direction as arm 62, and a second section 64 folded over section 63 and extending in a direction opposite from the arm 62. Arm 62, section 63 and portion 61 form a U-shaped member for receiving the side edge of a counter top.

As shown in Fig. 17, sections 63, 64 normally, that is, before strip 60 is mounted on the counter top, extend downwardly and outwardly from portion 61 while arm 62 extends upwardly and outwardly from portion 61. Portion 61 has an opening 66 therein and the side edge of the counter top 28 has a corresponding opening 66a. Sealing strip 60 is mounted on the counter top 28 by inserting a screw 65 through opening 66 and threading it

into opening 66a. The distance between the center of opening 66a and the upper surface of counter top 28 is greater than the distance between hole 66 in flange 60 and the lip 64, so that when the screw is threaded into opening 66a the portion 61 is pulled downwardly and section 64 is flexed upwardly to form a seal with the upper surface of the counter top. Counter top 27 is then inserted into the U-shaped member formed by arm 62, section 63 and portion 61. Since arm 62 and section 63 extend upwardly and downwardly, respectively, the vertical distance between their free edges is less than the thickness of the counter top so that when the counter top 27 is inserted in the U-shaped member, section 63 and arm 62 are flexed to form a seal with the upper and lower surfaces of the counter top, respectively.

As shown in Figs. 1, 7, 8 and 18 a finishing strip 70 is provided along the free right side edges of counter tops 26, 28 and is generally U-shaped in section, the legs being in contact with the top and bottom surfaces of counter top 28. As shown in Fig. 18 in the untensioned state, that is, before it is inserted on the side edge of the counter top, the finishing strip 70 has its upper leg 70a extending outwardly and downwardly so that the vertical distance between the upper leg 70a and the lower leg 70b is less than the thickness of the counter top 28. When the strip 70 is placed over the side edge of the counter top, the upper leg 70a is flexed upwardly to provide a seal with the upper surface of the counter top 28. Strip 70 is held in position by a screw 71 passing through an opening 72 in the strip.

An end cap 73 cooperates with the aligning member 29 and the strip 70 to seal the end of the counter. As shown in Fig. 9 cap 73 comprises a vertical wall 74, a curved-forward flange 75 at a right angle to wall 74, a vertical rearward flange at a right angle to wall 74 and a horizontal flange 77 at a right angle to wall 74.

Curved flange 75 extends upwardly and rearwardly and is provided with a spaced wall 78 which contacts the second part 31 of aligning member 29. Curved flange 75 is also provided with a lip 79 which extends downwardly into sealing contact with the upper leg 70a of strip 70. Horizontal flange 77 underlies the lower leg of strip 70.

As shown in Fig. 15 the rear edge of strip 70 telescopes within end cap 73 so that when the counter top 28 is moved inwardly or outwardly in order to align its forward edge with that of counter top 27, a satisfactory end trim and seal are maintained between the strip 70 and the cap 73.

As shown in Fig. 12 a corner member 80 is provided to cover the area between adjacent back-aligning member 29 at the corner of the room. The corner member 80 includes a first generally horizontal portion 81 which contacts the upper surface of the counter top and a second upwardly extending portion 82 having surfaces at a right angle to one another. A peripheral upper lip 83 along the top edge of portion 82 extends into contact with both walls at the corner. The upwardly extending portion 82 of corner member 80 is provided with a spaced wall 84 along each edge to form a groove 85 for receiving the upwardly extending portions of the aligning members 29 as shown in Fig. 13.

A modified form of mounting the back-aligning member 29 is shown in Fig. 14 wherein the member is fixed on the rear edge of a counter top by means of a screw 86 extending through the opening 42 in the base 36. If the wall is uneven, a wedge 90 may be placed between the rear edge of counter top 28 and the base of U-shaped portion 33 in order to properly position the forward edge of the counter top and permit its alignment with the forward edge of adjacent counter tops.

A counter top which is used along one wall only of a room is shown in Fig. 2. In this form the counter top 75 90 includes a back-aligning member 91 along its rear

edge which is of identical construction as back-aligning members 29, 30. End strips 70 and end caps 73 are provided on the ends of the counter top and a front strip 50 is provided along the front edge of the counter top. In this form of counter top the back-aligning member 91 is mounted on the wall and the counter top may be shifted relative to the back-aligning member 91 inwardly and outwardly to bring the front edge of the counter top 90 into alignment with other cabinets or appliances.

It can thus be seen that there has been provided a novel counter top construction including novel means for providing a seal between the counter top and a wall. In addition, novel means are provided for forming a seal between adjacent side edges of the counter tops, and novel means are provided for closing the ends of counter top constructions. The construction embodying the invention can be easily manufactured at low cost.

The back aligning members 29, 30, front strip 50, sealing strip 60, strip 70 and end cap 73 are preferably made of sheet metal which has the required degree of flexibility.

I claim:

1. A counter top construction comprising a pair of vertical walls at angles to one another, a plurality of generally horizontal adjacent counter tops, a back wall-aligning member extending across the rear edge of said counter tops and another back wall-aligning member extending across the side edge of the endmost counter top which is adjacent the area of juncture of said walls, each said back wall-aligning member comprising a U-shaped portion into which the edges of the counter tops project, each U-shaped portion including a generally horizontal upper leg, a generally horizontal lower leg and a generally vertical base connecting one end of said legs, each said back wall-aligning member including a portion extending upwardly and rearwardly from the forward edge of said upper leg, a corner member positioned on the rear corner of said endmost counter top in the area of juncture of said walls, said corner member extending upwardly and rearwardly and including a generally vertical slot along each vertical edge thereof, the upwardly extending portion at one end of each said back wall-aligning members being received in one of said slots, sealer means between adjacent side edges of said counter tops, and front trim means extending along the front edges of said counter tops.

2. The combination set forth in claim 1 wherein the rearmost edges of said upwardly extending portions of the back wall-aligning members before said members are positioned terminate in a vertical plane spaced rearwardly from the vertical plane of said vertical base of the U-shaped portion of each said back wall-aligning member, said upwardly extending portions being made of a material such that they may be flexed to bring the free edges thereof into alignment with the planes of the vertical bases thereof.

3. In a counter top construction, an integral back wall-aligning member comprising a U-shaped portion for receiving the rear edge of a counter top, said U-shaped portion comprising a short generally horizontal upper leg, a long generally horizontal lower leg and a generally vertical base connecting one end of each of said legs, said member including a portion extending upwardly and rearwardly from the forward end of said upper leg, and a resilient portion extending downwardly and forwardly from the forward end of the upper leg, said resilient portion having a part thereof projecting downwardly, the vertical distance between said latter part and said lower leg being less than the vertical distance between said upper and lower legs.

4. The combination set forth in claim 3 wherein said back wall-aligning member comprises a thin piece of sheet metal having generally uniform thickness, said resilient portion comprising a second relatively thin piece of sheet metal mounted on said member and projecting downwardly and forwardly therefrom.

5. In a counter top construction, a back wall-aligning member made from a single sheet of material of substantially uniform thickness, said member comprising a U-shaped portion for receiving the rear edge of a counter top, said U-shaped portion comprising a short substantially horizontal upper leg, a long substantially horizontal lower leg and a substantially vertical base connecting one end of each of said legs, said member including a longitudinally extending section extending upwardly and forwardly from the forward end of said upper leg, a second longitudinal section extending downwardly and forwardly from the forward edge of said first short section, a third longitudinal section extending upwardly and rearwardly from the forward edge of said second section, said first and second sections being contiguous, and a fourth longitudinal section extending upwardly and rearwardly from the rear edge of said third section, the free end of said fourth section lying in a vertical plane spaced rearwardly from the vertical plane of the vertical base of the U-shaped portion, the thickness of said back wall-aligning member being such that said fourth section is resilient and will move forwardly when the free edge of said fourth section is brought into contact with a wall thereby permitting the fourth section of said back wall-aligning member to conform to variations in the plane of the wall.

6. The combination set forth in claim 5 including a second member of substantially uniform thickness, less than the thickness of said back-aligning member, said second member having a first portion underlying the second portion of said back wall-aligning member, a second portion extending forwardly and downwardly from the forward end of said first portion, and a third portion extending rearwardly and upwardly from the forward end of said second portion, said third portion having a part thereof contiguous with said second portion and another part thereof contiguous with the third and fourth sections of said back wall-aligning member, the forward end of said second portion of said second member projecting downwardly so that the vertical distance between the forward end thereof and the long leg of the U-shaped portion of the back wall-aligning member is less than the vertical distance between the short leg and the long leg of said U-shaped portion thereof, the thickness of said second member being such that the contiguous parts of said second and third portions thereof are flexed upwardly when the end of a counter top is inserted in the U-shaped portion of the back wall-aligning member thereby providing a seal between the second member and the top of the counter top.

7. The combination set forth in claim 6 wherein the free upper edge of said fourth portion of the second member is turned over the free edge of said fourth portion of the back wall-aligning member.

8. A counter top construction comprising a substantially vertical wall, a back-aligning member, said member comprising a longitudinally extending U-shaped portion including a short generally horizontal upper leg, a long generally horizontal lower leg, and a substantially vertical base connecting the ends of said legs, said member including a portion extending upwardly and rearwardly therefrom, the free end of said upwardly extending portion prior to mounting said member on said wall lying in a vertical plane spaced rearwardly from the vertical plane of said vertical base, said upwardly extending portion being made of a material such that it may be flexed to bring the free edge thereof into alignment with the vertical plane of said vertical base, means for mounting said back-aligning member on said wall comprising means extending through said vertical base of the U-shaped portion thereof thereby bringing said vertical leg into contact with said wall and flexing said portion of the back wall-aligning member to conform to variations in the wall, and a plurality of counter tops having the rear edges thereof inserted in the U-shaped portion of said back wall-aligning

7

member, the forward edges of said counter tops being in alignment with one another.

9. In a counter top construction including a counter top forming a corner, back-aligning members extending upwardly and rearwardly from adjacent the rear edges of said counter top and having generally vertical side edges, and a corner member comprising a first substantially horizontal portion, a second upwardly and rearwardly inclined portion having generally vertical surfaces at a right angle to one another, and a third rearwardly inclined portion extending from the upper end of said second portion, the second upwardly inclined portions of said member being provided with slots along their side edges for receiving the vertical side edges of said back-aligning members.

10. In a counter top construction, the combination comprising a counter top, a back aligning member comprising a longitudinally extending U-shaped portion for receiving the rear edge of the counter top and a portion extending upwardly and rearwardly from said U-shaped portion, and an end closing member including a substantially vertical portion adapted to close the end of said back wall aligning member, said end closing member including a vertical flange extending at a right angle from said vertical portion and adapted to engage the wall of a room in which the counter top is positioned and the free upper edge of the upwardly and rearwardly extending portion of the back aligning member, said end closing member including a horizontal flange extending at a right angle from the lower edge of said vertical portion and underlying said counter top, and an upwardly and rearwardly inclined flange extending from the forward edge of said vertical portion at a generally right angle to said vertical portion and means forming a slot along the edge

8

of said upwardly and rearwardly inclined flange into which the upwardly and rearwardly extending portion of the edge of said back aligning member is inserted.

11. In a counter top construction, the combination comprising a counter top, a back wall aligning member on the rear end of the counter top and having a generally flexible portion thereof extending upwardly and rearwardly, a U-shaped sealing strip into which substantially the entire length of one edge of said counter top extends, and an end cap on the end of said back wall aligning member, said end cap comprising a vertical end portion closing the end of the back wall aligning member, means on said end cap engaging said upwardly and rearwardly extending portion of said back wall aligning member, a horizontal flange on said end cap for extending below the counter top, the rear end of said sealing strip being telescopically received within said vertical section and horizontal flange of said end cap.

References Cited in the file of this patent

UNITED STATES PATENTS

2,158,467	Madsen	May 16, 1939
2,185,900	Oster	Jan. 2, 1940
2,484,283	Gilbert	Oct. 11, 1949
2,570,850	Pearson	Oct. 9, 1951
2,646,326	Stanitz	July 21, 1953
2,661,994	Knuth	Dec. 8, 1953
2,665,183	Battles	Jan. 5, 1954
2,680,250	Kerby	June 8, 1954
2,697,019	Stefan	Dec. 14, 1954
2,743,980	Hobbs	May 1, 1956
2,790,181	McCarthy	Apr. 30, 1957