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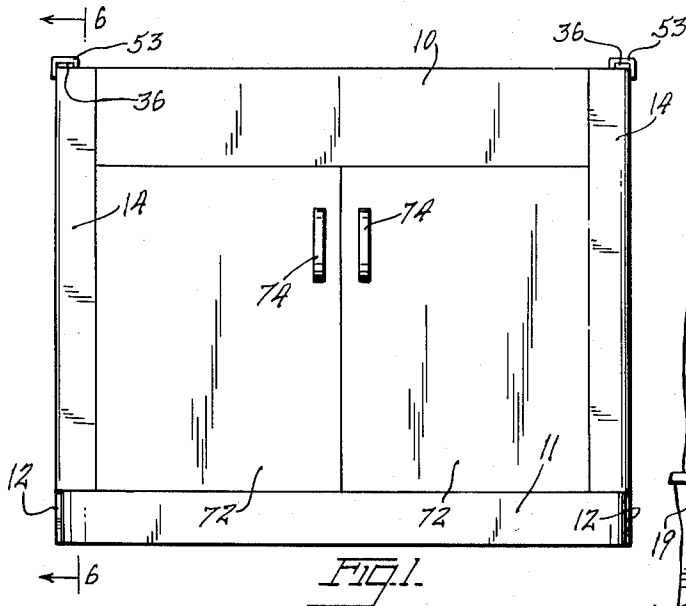
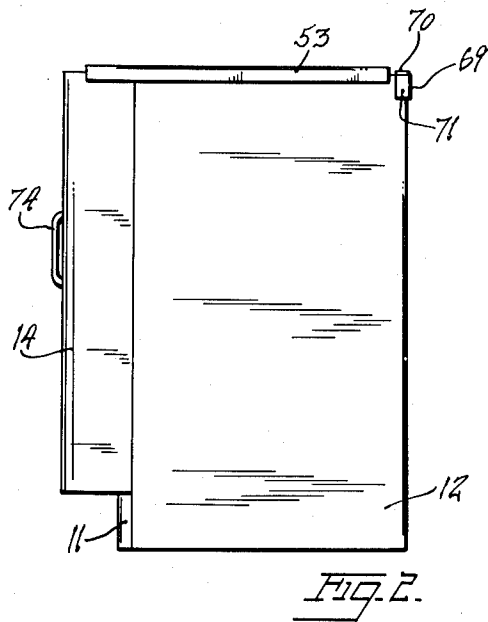
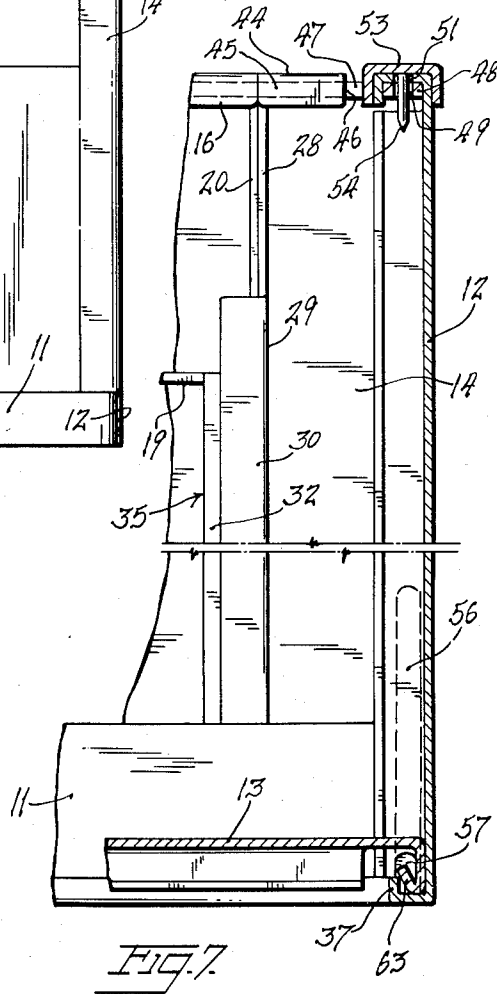
T. SCHAFFNER

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SECTIONAL KNOCK DOWN METAL KITCHEN CABINET

Filed July 31, 1953

4 Sheets-Sheet 1



INVENTOR
THEODORE SCHAFFNER
BY
John H. H. H. H.
ATTORNEY

Jan. 24, 1956

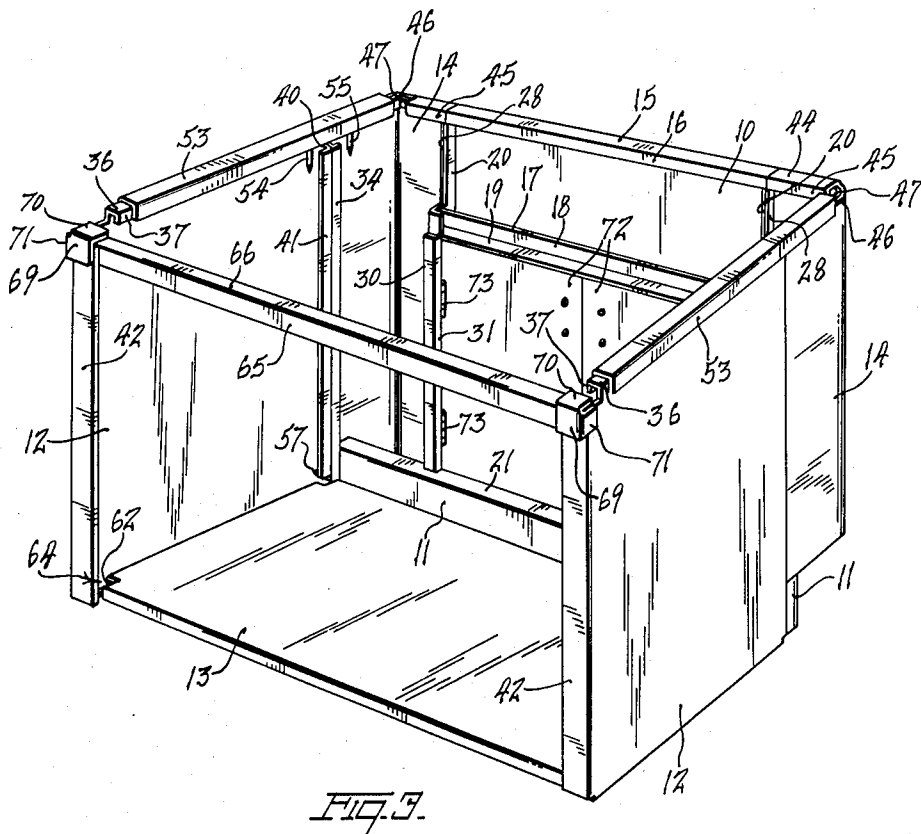
T. SCHAFFNER

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SECTIONAL KNOCK DOWN METAL KITCHEN CABINET

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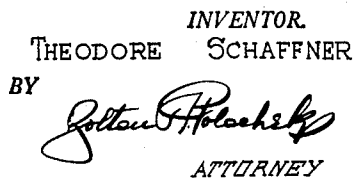


INVENTOR.
THEODORE SCHAFFNER
BY
John H. Schickel
ATTORNEY

T. SCHAFFNER

SECTIONAL KNOCK DOWN METAL KITCHEN CABINET

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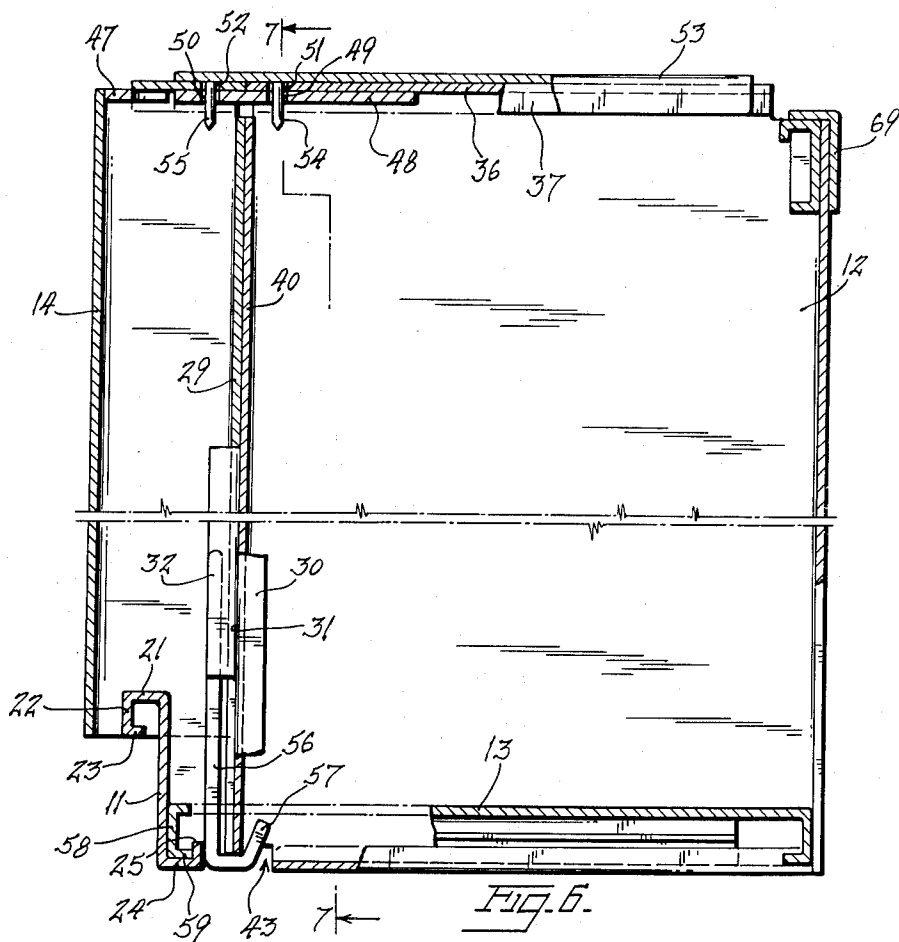
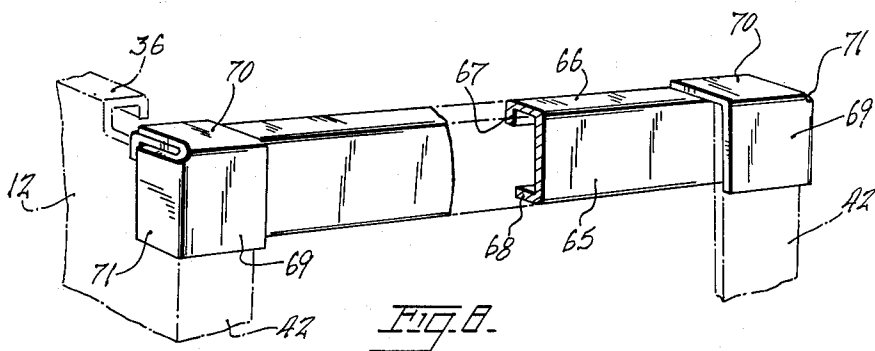
T. SCHAFFNER

2,732,273

SECTIONAL KNOCK DOWN METAL KITCHEN CABINET

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4 Sheets-Sheet 4



INVENTOR
THEODORE SCHAFFNER
BY
Golden Polachek
ATTORNEY

1

2,732,273

SECTIONAL KNOCK DOWN METAL KITCHEN CABINET

Theodore Schaffner, New York, N. Y., assignor to Mareth Steel Corp., New York, N. Y., a corporation of New York

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4 Claims. (Cl. 312—257)

This invention relates to knockdown sheet metal kitchen cabinets and, more particularly, to a new and useful improvement in an under-the-sink and against-the-wall kitchen cabinet.

A principal object of the present invention is to provide a knockdown cabinet which may be formed of a plurality of panel members or sections, each of which comprises a single sheet having a flange or flanges thereon of relatively narrow width. These panels may be packed flat or nested within each other if the dimensions permit so that the cabinet may be shipped inexpensively.

Another object of the invention is to provide a sectional sheet metal cabinet which may be assembled by anyone without the use of special tools and without special skill or intelligence.

A further object of the invention is to provide a sheet metal cabinet which may be assembled to provide a rigid structure with the use of a minimum number of screws, bolts, rivets or other fastening members.

Still another object of the invention is to provide a sheet metal cabinet in which the panels have channel-shaped edge portions for receiving fastening elements whereby said panels may be readily connected, said channel-shaped edge portions serving to lend strength and rigidity to the whole structure so that it will retain the desired shape and remain true indefinitely.

Yet another object of the invention is to provide a sheet metal enameled cabinet which is adapted for quantity production and which may be readily assembled at the point of use without in any manner chipping or marring the enamel of the cabinet.

A specific object of the invention is to provide a cabinet which is readily installed under a sink and against a wall whereby the bottom of the sink and the wall constitute the top and rear closures for the cabinet.

It is further proposed to provide a kitchen cabinet which is simple and rugged in construction and which can be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a front elevational view of a kitchen cabinet embodying the invention.

Fig. 2 is a side elevational view thereof.

Fig. 3 is a rear perspective view thereof.

Fig. 4 is an exploded rear perspective view thereof.

Fig. 5 is an enlarged part sectional and part elevational view of the rear top rail and corner sockets.

Fig. 6 is an enlarged vertical sectional view taken on the plane of the line 6—6 of Fig. 1.

Fig. 7 is a vertical sectional view taken on the plane of the line 7—7 of Fig. 6.

Fig. 8 is an enlarged detail perspective view of the rear top rail and corner sockets.

2

Referring in detail to the drawings, the cabinet shown is formed of sheet metal and is rectangular in plan. The front of the cabinet is closed at its top portion by a narrow panel 10 and is closed at its bottom portion by a narrow panel 11, offset inwardly from the top panel. Opposed rectangular-shaped panels 12, 12 close the sides of the cabinet, and a rectangular-shaped panel 13 constitutes the bottom of the cabinet. The front panels 10 and 11 and the side panels 12, 12 are connected by corner panels or posts 14 L-shaped in cross-section, extending from the top of the cabinet to the top of the bottom panel 11. The cabinet is open at the top and at the rear.

The front upper panel 10 is formed at its top end with a rearwardly extending flange 15 terminating in a downwardly extending margin 16. The bottom of the panel 10 is formed with a rearwardly extending flange 17, slightly wider than the top flange 15. Flange 17 terminates in a downwardly extending flange 18 which in turn terminates in a rearwardly extending margin 19. The panel 10 is also formed with rearwardly extending flanges 20, 20 at its ends.

The front lower panel 11 is formed with a top flange 21 extending forwardly to a point in alignment with the rear edge of the bottom flange 17 of the upper panel 10. Top flange 21 is formed with a downwardly extending flange 22 at its front edge, said latter flange terminating in a rearwardly extending margin 23. A rearwardly extending flange 24 is formed on the bottom of the panel 11 and terminates in an upwardly extending margin 25. At its ends, the panel 11 is formed with rearwardly extending flanges 26, 26 terminating in inwardly extending margins 27, 27.

Each corner post or panel 14 at its front end is formed with a rearwardly extending flange 28 placed side by side with the adjacent rearwardly extending flange 20 of the front top panel 10, said flange 28 having an enlarged portion 29 extending from the lower flange 17 of the top panel 10 to the bottom of the downwardly extending flange 22 on the bottom panel 11.

A metal angle bar 30, extending from the lower flange 19 of the front top panel 10 to the top flange 21 of the bottom panel 11, is welded or otherwise suitably secured to the enlarged portion 29 of each corner panel or post 14 and to the ends of the adjacent downwardly extending flanges 18 and 22 of the upper and lower panels 10 and 11, respectively. The front top and bottom panels 10 and 11, respectively, and the corner panels 14 are thus fastened together. Each angle bar 30 is formed with a rearwardly extending flange 31 which terminates in a laterally extending margin 32. Flanges 31 extend downwardly from the flanges 19 of the top panel 10, with their bottom ends resting on the top flange 21 of the front bottom panel 11.

The rear end of the rearwardly extending portion of each corner panel 14 is formed with an inwardly extending flange 33 terminating in a forwardly extending margin 34.

The flange 19 of the front top panel 10, flanges 31 of the angle bars 30 and top flange 21 of the front bottom panel 11 define an entrance opening 35 at the front of the cabinet.

Each side panel 12 is formed at its top end with an inwardly extending flange 36 terminating in a downwardly extending margin 37. At its bottom end, each side panel is formed with an inwardly extending flange 38 terminating in an upwardly extending margin 39. The front end edge of each side panel is formed with an inwardly extending flange 40 terminating in a rearwardly extending margin 41. The flange 40 is positioned side by side with the flange 33 of the adjacent corner panel or post 14. At its rear end edge, each side panel is formed with an inwardly extending flange 42 of wider dimension than the flange 40. Each bottom flange 38

and margin 39 terminate at a point remote from the flange 40 and margin 41 leaving a space 43 therebetween.

The upper end edge of each corner panel or post 14 is formed with an inwardly extending flange 44 terminating in a downwardly extending margin 45, said flange 44 and margin 45 being notched midway their ends, as indicated at 46, to facilitate the shaping thereof. The flange 44 and margin 45 of each corner panel or post provide a channel which at one end is in alignment with the channel formed by the upper flange 36 and margin 37 of the adjacent side panel 12, and at its other end is in alignment with the channel formed by the upper flange 15 and margin 16 of the front top panel 10. An L-shaped cleat 47 is positioned in the upper channel of each corner panel or post 14 and extends into the aligned channel at the top of the front top panel 10. The cleats 47 are secured in the channels by welding the same to the flanges 44 and 15 of the corner posts and front top panels, respectively. The cleats serve to fasten the side panels 12 and the front top panel 10 together and also serve to reinforce the corners of the cabinet.

A flat bar or cleat 48 is loosely mounted in and extends across the joint between the aligned top channel portions of each side panel 12 and the adjacent corner panel 14. Each bar 48 is formed with spaced openings 49 and 50, with the opening 49 in register with an opening 51 adjacent the front end of the top flange 36 of the side panel 12 and with opening 50 in register with an opening 52 in the rear end of the flange 44 in the adjacent corner panel or post 14. A channel bar 53 having a pair of depending pins 54 and 55 is removably fitted over the top channeled edges of each side panel 12 and its adjacent corner panel or post 14, with the pin 54 projecting through the registered openings 49 and 51 and with the pin 55 projecting through the registered openings 50 and 52 whereby the side panels 12 and the corner panels or posts 14 are detachably secured together.

At each end of the front bottom panel 11, an elongated flat bar or cleat 56 is positioned in the channel portion formed by the adjacent end flange 24 and margin 25, which bar is spot welded to the margin 25. Each bar has its bottom end bent upwardly to form a hook 57, the hook extending through the space 43 at the bottom end of the flange 34 of the adjacent side panel 12 whereby said hook extends inwardly of the adjacent side panel and interlocks the same with the corner panel at the bottom of the cabinet.

The panel 13 constituting the bottom or floor of the cabinet is provided with a downwardly extending flange 58 along its front long edge, terminating in an inwardly extending margin 59, said flange 58 seating on the rearwardly extending flange 24 on the bottom of the lower panel 11. The panel 13 is also provided with a downwardly extending flange 60 along its rear long edge, terminating in an inwardly extending margin 61. A downwardly extending flange 62 is formed on each short end edge of the panel 13, each flange 62 terminating in a hooked-shaped margin 63 adapted to interlock with the adjacent upwardly extending margin 37 on the bottom of the adjacent side panel 12. The flanges 62 and margins 63 are shorter than the width of the panel so as to leave a space 64 on either side thereof to afford clearance for the hooked end 57 of the adjacent bar 56.

The rear ends of the side panels 12 are detachably tied together at their tops by a rail 65 having a forwardly extending flange 66 along its top edge, terminating in a downwardly extending margin 67. The bottom edge is also formed with a forwardly extending flange 68. A square corner strip 69 is secured to each end of the rail 65, said strip having a top flange 70 spot welded to the top flange 66 of the rail and having an end flange 71 extending across the adjacent end of the rail but spaced slightly therefrom. The body of the corner strip is slightly spaced from the body of the rail leaving a clearance between the strip and rail and is open at its

bottom to provide an entrance to said clearance. The end of the rail can thus be slipped over the top end of the adjacent side panel 12 and its flange 42, the top end of the side panel being received in the space between the end flange 71 of the strip and the adjacent end of the rail, and the flange 42 being received in the clearance between the body of the strip 69 and the body of the rail 65.

The entrance opening 35 at the front of the cabinet is closed by door sections 72, 72 which are supported by hinges 73 secured to the flanges 31 of the angle bars 30. Each door section is provided with a pull handle 74 secured thereto by screws 75.

The front panels 10 and 11, and corner curved panels or posts 14 together with the door sections 72, are fastened together at the factory and shipped as a unit. The remaining parts of the cabinet are shipped in knock-down fashion and are so shaped that they can be nested in the unit. Upon arrival at the point of use, the cabinet can readily be assembled by dropping the side panels 12 over the hooks 57, and inserting the cleats 48 in the aligned channels at the top of the side panels and corner panels or posts 14. The channel bars 53 are next slipped over the adjacent channeled top end edges of the side panels and corner posts and pressed downwardly to force the pins 54 and 55 into the aligned openings in the channeled top end edges and in the cleats 48. The tie rail 65 is then slipped over the top rear ends of the side panels and their flanges 42. Lastly, the bottom or floor 13 is inserted through the open top of the cabinet downwardly into interlocking position with the inwardly extending bottom flanges 38 on the side panels 12 and the flanges 24 on the front bottom panel 11.

The assembled cabinet can be readily pushed under a kitchen sink and against the wall supporting the sink. When thus positioned, the bottom of the sink and the wall serve as closures for the top and rear respectively of the cabinet. The interior of the cabinet is free from shelves and other obstructions so that the cabinet can serve as a "catchall" for storing kitchen utensils, tools and the like.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A knockdown sheet metal cabinet comprising separable rectangular panel sections including a front section, a bottom section and two opposed side sections, said front section including top and bottom panels and connecting upright corner posts, all of said panels having flanged edges extending normal to the plane of the panels, the flanged edges of said front and bottom sections terminating in marginal portions parallel to the planes of said sections, three of the four flanged edges of each side section terminating in marginal portions parallel to the planes of said side sections, means for detachably connecting the flanged edges of said side sections and said corner posts, and separate means for interlocking the top and bottom ends of said posts and side sections, said means including hooks carried at the bottom ends of the bottom panel of the front section for interlocking with the bottom ends of said side sections.

2. An under-the-sink and against-the-wall kitchen cabinet comprising a front panel including top front and bottom front panel sections, opposed side panels, a bottom panel, L-shaped corner panels connecting the front and side panels, said cabinet being open at the top and rear, all of said panels having flanged edges, said side panels and bottom panel having interlocking flanged edges, up-standing angle bars supported by said corner panels, in-

5

wardly extending flanges on said angle bars, the flanges on the top and bottom sections of the front panel and the flanges on the angle bars defining an opening at the front, door sections hinged to the flanges on the angle bars for closing said opening, interlocking means between the side panels and the ends of the bottom front panel section, and means for connecting the rear ends of the side panels.

3. An under-the-sink and against-the-wall kitchen cabinet comprising a front panel including top front and bottom front panel sections, opposed side panels, a bottom panel, L-shaped corner panels connecting the front and side panels, said cabinet being open at the top and rear, all of said panels having flanged edges, said side panels and bottom panel having interlocking flanged edges, upstanding angle bars supported by said corner panels, inwardly extending flanges on said angle bars, the flanges on the top and bottom sections of the front panel and the flanges on the angle bars defining an opening at the front, door sections hinged to the flanges on the angle bars for closing said opening, interlocking means between the side panels and the ends of the bottom front panel section, and means for connecting the rear ends of the side panels, said connecting means including a rail detachably connected to the side panels at their top ends.

4. An under-the-sink and against-the-wall type kitchen cabinet comprising a flat bottom panel and flat opposed

6

side panels, angled corner panels connected to the front upright edges of the side panels, a panel section connecting the top front ends of the corner panels, a panel section connecting the bottom front ends of the corner panels, said top and bottom panel sections and said corner panels defining an opening at the front of the cabinet, door sections hingedly connected to the front upright edges of said corner panels closing said opening, said cabinet being open at the top and rear, said side, corner and top front panel sections having channeled top edges, straight cleats in the adjacent channeled edges of the side and corner panels connecting said panels at the top, cleats in the adjacent channeled top edges of the corner panels and top panel section at the front for connecting said corner panels and top panel section, an angled rail connecting the rear top ends of said side panels, and flanges on the bottom ends of said side panels interlocking with flanges on the ends of the bottom panel for connecting said panels.

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