April 24, 1956 L. K. EDWARDS 2,743,145

CONVERTIBLE TABLE UNIT

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FIG. 1.

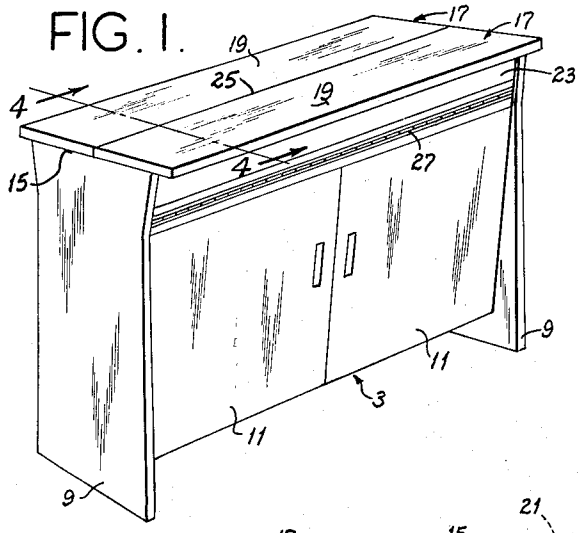



FIG. 4.

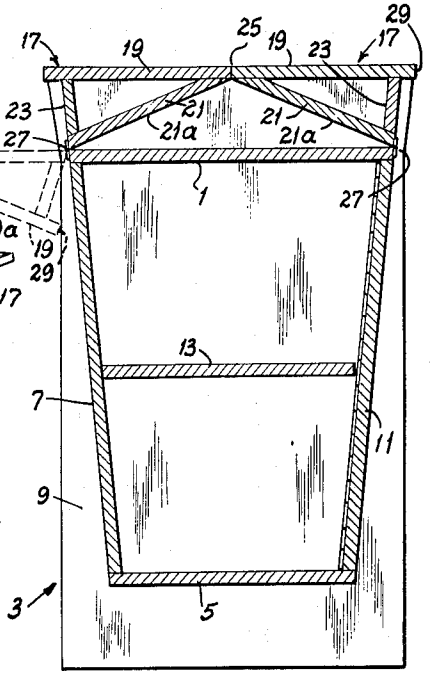



FIG. 2.

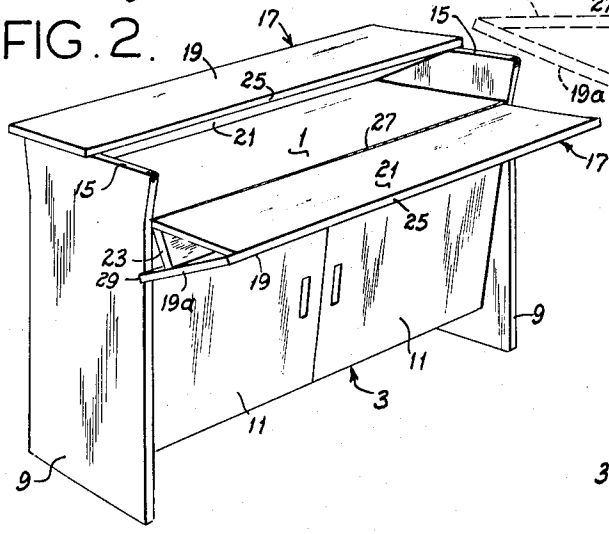
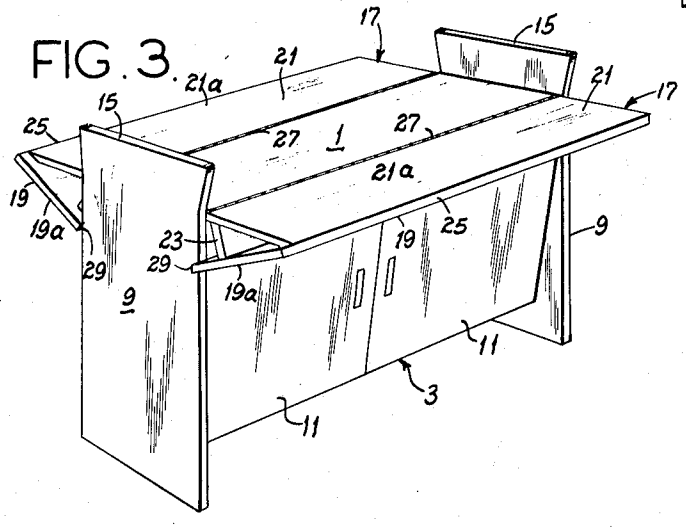



FIG. 3.




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FIG. 5.

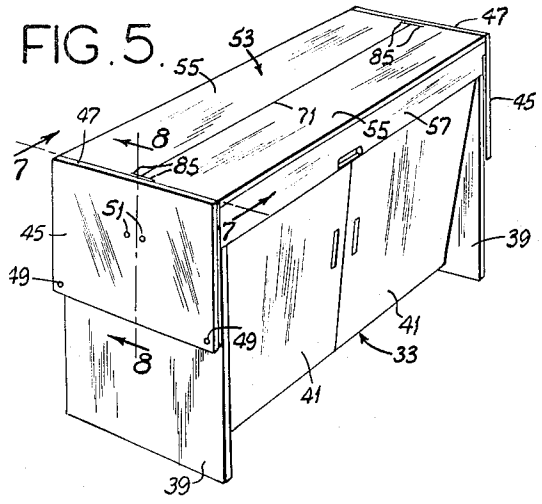



FIG. 6.

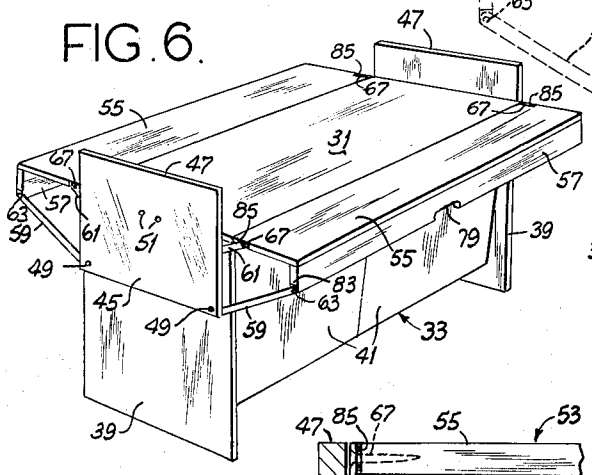



FIG. 7.

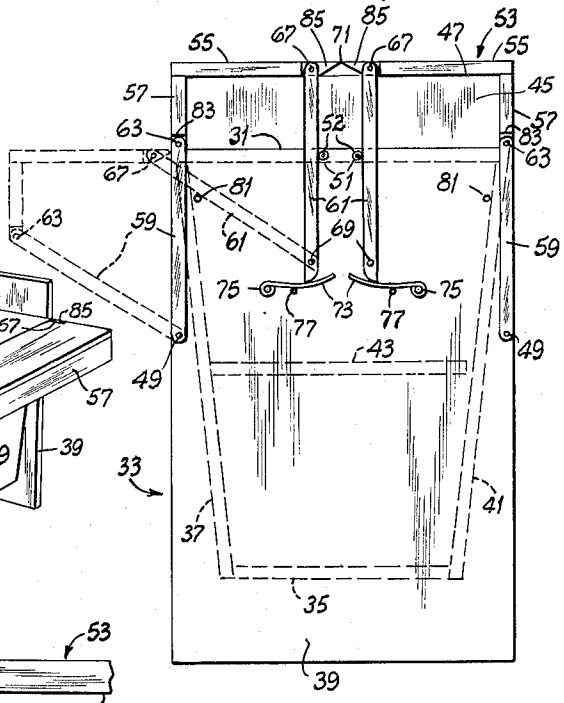
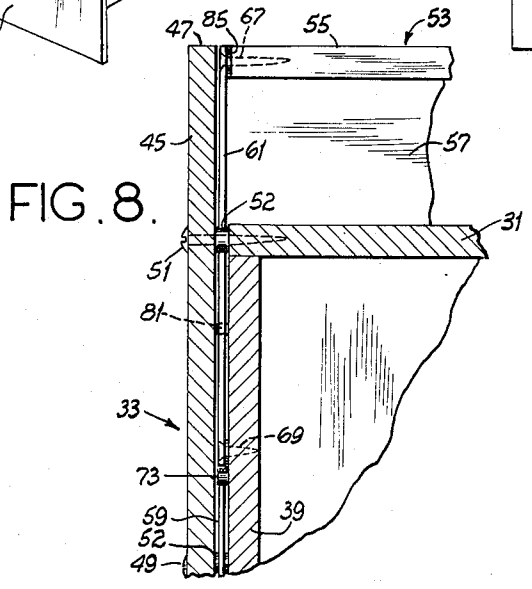



FIG. 8.




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FIG. 9.

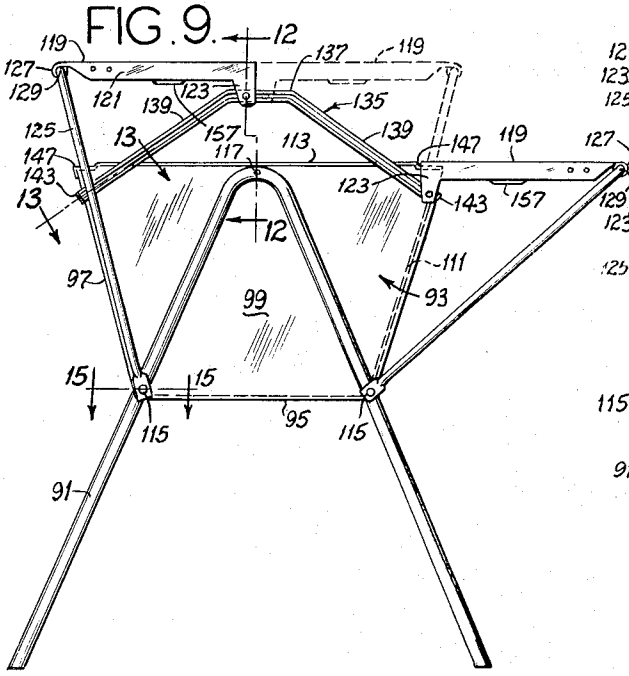



FIG. 10.

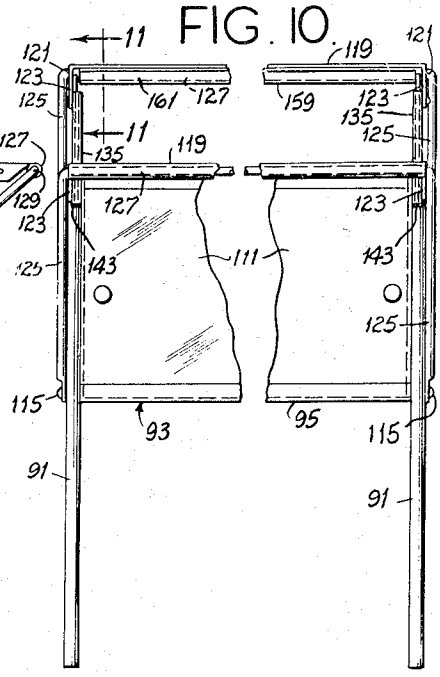



FIG. 11.

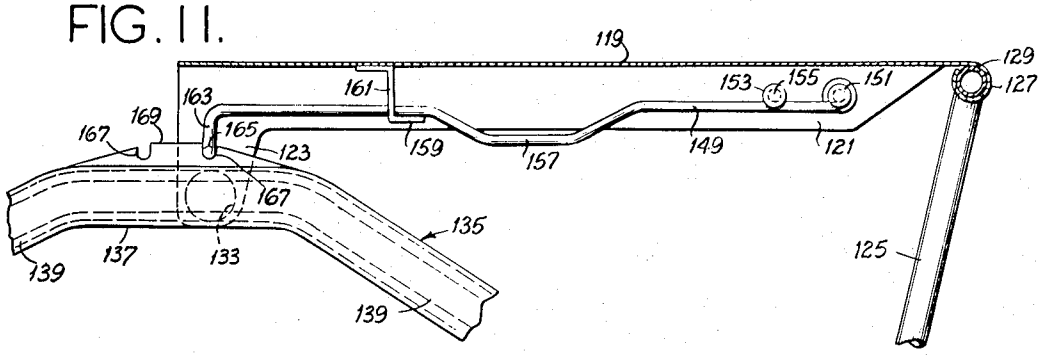
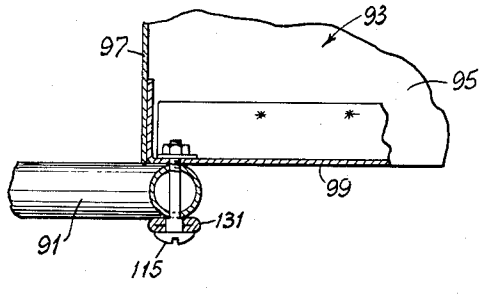



FIG. 15.




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FIG. 12.

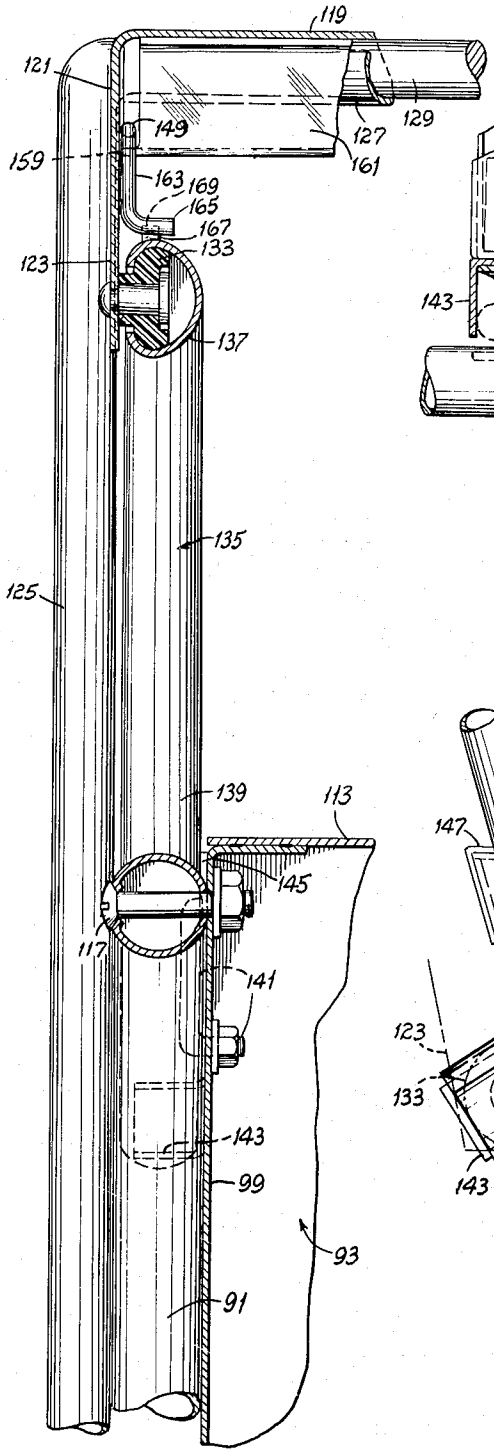



FIG. 13.

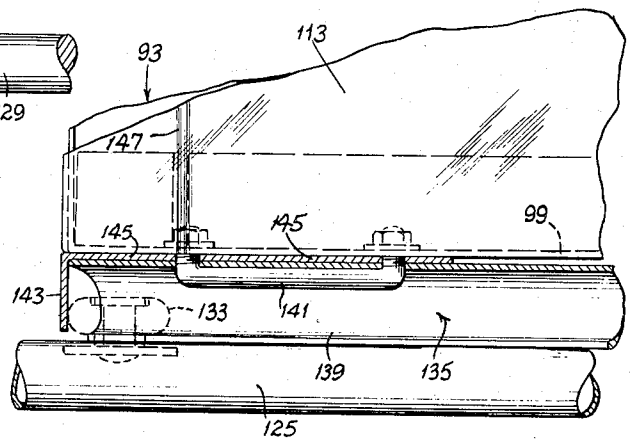
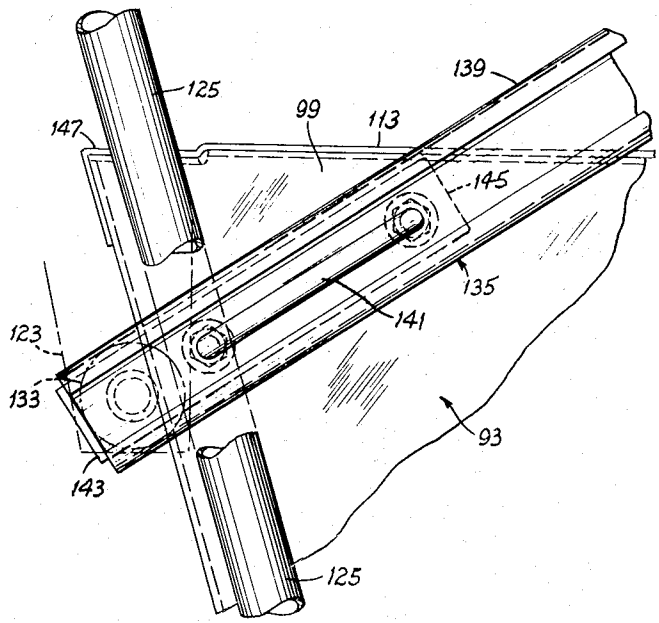



FIG. 14.




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United States Patent Office 2,743,145 Patented Apr. 24, 1956



2,743,145

# CONVERTIBLE TABLE UNIT

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Application February 12, 1954, Serial No. 409,957

14 Claims. (Cl. 311—3)

This invention relates to convertible furniture, and more particularly to convertible table units.

Among the several objects of the invention may be noted the provision of an article of furniture, and particularly a table unit, which is readily convertible to serve for such different purposes as a counter or a dining table; the provision of a convertible table unit which, in a first aspect, provides a working surface at counter height, in a second aspect provides a more extensive table area at a lower elevation corresponding to normal dining table height, and may have a third aspect providing adjacent upper and lower working surfaces suitable for use as a bar; and the provision of a construction of the class described capable of being embodied in an article of furniture which is of pleasing appearance in any one of its aspects. Other objects and features will be in part apparent and in part pointed out hereinafter.

The invention accordingly comprises the constructions hereinafter described, the scope of the invention being indicated in the following claims.

In the accompanying drawings, in which several of various possible embodiments of the invention are illustrated,

Fig. 1 is a perspective view of a first embodiment of the table unit of this invention in its counter aspect;

Fig. 2 is a view corresponding to Fig. 1, but showing the unit in its bar aspect;

Fig. 3 is a view corresponding to Figs. 1 and 2, but showing the unit in its dining table aspect;

Fig. 4 is an enlarged vertical cross section taken on line 4—4 of Fig. 1;

Fig. 5 is a perspective view of a second embodiment of the invention in its counter aspect;

Fig. 6 is a view corresponding to Fig. 5, but showing the unit in its dining table aspect;

Fig. 7 is an enlarged vertical cross section taken on line 7—7 of Fig. 5;

Fig. 8 is an enlarged vertical cross section taken on line 8—8 of Fig. 5;

Fig. 9 is an end view of a third embodiment of the invention;

Fig. 10 is an elevation of Fig. 9 as viewed from the right, parts being broken away;

Fig. 11 is an enlarged vertical cross section taken on line 11—11 of Fig. 10;

Fig. 12 is an enlarged vertical cross section taken on line 12—12 of Fig. 9;

Fig. 13 is an enlarged cross section taken on line 13—13 of Fig. 9;

Fig. 14 is an enlarged fragment of Fig. 9, with parts broken away; and,

Fig. 15 is an enlarged horizontal cross section taken on line 15—15 of Fig. 9.

Corresponding reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings, Figs. 1–4 illustrate a first embodiment of the invention including a table top panel



1 fixedly mounted on a supporting means at an elevation corresponding to normal dining table height (about thirty-one inches for example). The panel 1 is shown as being the top of a cabinet, generally designated 3, which constitutes the stated supporting means. The cabinet has a bottom 5, a back wall 7, end walls 9, front doors 11 and a shelf 13. The height of the end walls corresponds to counter height (about thirty-six inches for example), and they project above the top panel 1. The end walls 9 have horizontal upper edges 15. As shown, the front and back of the cabinet 3 may be offset inward from the front and back edges of the end walls 9 and also convergent in downward direction, and the bottom 5 may be above the floor, though these features are not essential to the invention. Doors 11 may be hinged or sliding doors.

The table construction also includes a pair of identical leaves, each generally designated 17, mounted for movement between the raised position shown in Fig. 1 and in solid lines in Fig. 4 wherein they are located above the top panel 1 and provide a generally continuous working surface at an elevation corresponding to counter height, and the lowered and extended position shown in Fig. 3 for both leaves wherein they form coplanar extensions of the top panel 1 at opposite sides thereof. The leaves 17 are also individually movable so that either one of the leaves may occupy its raised position and the other its lowered position (see Fig. 2 and the dotted-line position of one leaf in Fig. 4). In this aspect of the table construction, one leaf provides a serving surface at counter height and the other provides a working surface at normal table height to serve as a bar.

More particularly, each of the leaves 17 is of triangular cross section, preferably being made up of three individual panels 19, 21 and 23. Panel 19 is longer than the distance between the inside faces of the end walls 9. Panels 21 and 23 are somewhat shorter than this distance so that they may fit between the end walls 9 with some clearance. Panels 19 and 21 of each leaf diverge from the corner indicated at 25. The width of panel 19 is preferably at least as great as half the length of the upper edge 15 of an end wall 9. The width of panel 21 corresponds to the distance along the diagonal from a side edge of the top panel 1 to the center of the upper edge 15 of an end wall 9. Panels 23 are arranged to appear as continuations of the front and back of the cabinet when the leaves are in raised position.

The leaves 17 are hinged by means of continuous hinges 27 at the meeting corners of panels 21 and 23 to the opposite side edges of the top panel 1. The arrangement is consequently such that the leaves may occupy the stated raised position shown in Figs. 1 and 4 above the top panel 1 wherein the panels 19 are horizontal and bear at their ends on the upper edges 15 of the end walls 9, with the corners 25 of the two leaves 17 in engagement along the end-to-end vertical central plane of the unit. In this position of the leaves, the outside surfaces 19*a* of the panels 19 face upward and are coplanar and horizontal at an elevation corresponding to counter height for the unit to serve as a counter. The inside surfaces of panels 19 in this position face downward and are spaced above and out of contact with top panel 1. The outside surfaces 21*a* of panels 21 face downward, converging toward one another in upward direction from the opposite side edges of top panel 1 to the engaged leaf corners 25. Either leaf 17 may be swung on its hinge 27 to the stated lowered and extended position shown for the leaf in the foreground in Fig. 2, shown for both leaves in Fig. 3 and shown for one leaf in dotted lines in Fig. 4, wherein the outside surface 21*a* of its panel 21 faces upward and is horizontal and coplanar with the top panel. In this position of the leaf, which is determined by the engagement of the edge 29 of its panel 19 opposite corner 25 with the

side edges of end walls 9, the surface 19a of panel 19 faces downward. With both leaves in lowered and extended position, the unit serves as a dining table. With one leaf raised and the other lowered, the unit serves as a bar.

Figs. 5–8 illustrate a second embodiment of the invention including a table top panel 31 which constitutes the top of a cabinet 33 corresponding in general to the cabinet 3. The cabinet 33 has a bottom 35, a back wall 37, end walls 39, front doors 41 and a shelf 43. In this case, the cabinet end walls 39 extend only to the top panel 31. Mounted on the end walls 39 and spaced outward therefrom are rectangular cover panels 45. These extend higher than the cabinet end walls 39 and have horizontal upper edges 47 located at an elevation above floor level corresponding to counter height. The cover panels 45 are supported from the end walls 39 by means of a pair of lower fasteners such as screws 49 at the lower corners of cover panels extending into end walls 39, and by a pair of upper fasteners such as screws 51 which extend into the end edges of the top panel 31 closely adjacent the vertical center line of the cover panels. Spacers such as indicated at 52 are provided on the fasteners 49 and 51 on the inside of the cover panels.

The unit shown in Figs. 5–8 also includes a pair of identical leaves, each generally designated 53, mounted for movement between the raised position shown in Fig. 5 and in solid lines in Fig. 7 wherein they are located above the top panel 31 and provide a generally continuous working surface at an elevation corresponding to counter height, and the lowered and extended position shown in Fig. 6 for both leaves wherein they form extensions of the top panel 31 at opposite sides thereof for the unit to serve as a dining table. The leaves 53 are also individually movable so that either leaf may occupy its raised position and the other its lowered position (see the dotted-line position for one leaf illustrated in Fig. 7), for the unit to serve as a bar.

More particularly, each of the leaves consists of a top panel 55 and an apron 57. These are somewhat shorter than the distance between the cover panels 45 so that they may fit between the cover panels with some clearance. Apron 57 extends downward at right angles from the outer edge of the panel 55. Each leaf is mounted for swinging movement from its raised position to its lowered position with top panel 55 remaining substantially horizontal as it swings by means of a parallelogram linkage including outer and inner links 59 and 61. Links 59 are pivotally connected at their upper ends to the end edges of apron 57 as indicated at 63, and at their lower ends to the end walls 39 by the screws 49. Links 61 are connected at their upper ends to the end edges of panels 55 as indicated at 67, and at their lower ends to the end walls 39 as indicated at 69. The arrangement is such that when the links 59 and 61 are vertical, the leaves 53 are in their raised position, with the panels 55 of the two leaves horizontal and coplanar at the elevation of the upper edges 47 of the cover panels 45. Also, in the raised position of the two leaves, they meet along their inner edges as indicated at 71. Inward and upward swinging movement of the parallelogram linkages is limited by the engagement of the links 61 with the spacers on upper fasteners 51. The leaves 53 are retained in their raised positions by latching means, such as flat-leaf detent springs 73 mounted on the end walls 39 at 75, held in position by pins 77, and engageable with the lower ends of links 61. The leaves are readily swingable downward and outward from their raised positions to their lowered positions wherein their panels 55 are horizontal and coplanar with the top panel 31, forming extensions thereof at opposite sides, this lowered position being determined by engagement of the links 61 with stops 81 constituted, for example, by pins mounted on end walls 39. Notches 79 may be provided in aprons 57 for obtaining a handhold on the leaves to pull them downward and outward. The upper ends of links 59 may be accommodated in notches 83 in the end edges of aprons 57, and the upper ends of links 61 may be accommodated in notches 85 in the end edges of panels 55.

Figs. 9–15 illustrate a third embodiment of the invention comprising end members 91 supporting a cabinet 93. The end members are shown as being of inverted V-shape and providing legs supporting the cabinet above the floor. Each of the members 91, as shown, may consist of a length of pipe bent to the stated V-shape. The cabinet in this case may be made of sheet metal and has a bottom 95, a back wall 97, end walls 99, sliding front doors 111, and a top 113. The latter constitutes a table top panel corresponding to top panels 1 and 31 of the first and second embodiments. The end members 91 are fixed to the end walls of the cabinet by bolts 115 at the lower corners of the end walls and a bolt 117 at the apex of the V. The front and back of the cabinet are shown as being convergent in a downward direction.

The construction shown in Figs. 9–15 includes a pair of leaves 119 mounted for movement between the raised position shown in Fig. 9 in solid lines for the left-hand leaf and in dotted lines for the right-hand leaf, and the lowered and extended position shown in Fig. 9 in solid lines for the right-hand leaf. In the raised position of the leaves they are located above the top panel 113 and provide a generally continuous working surface at an elevation corresponding to counter height. When both leaves are in the lowered and extended position (shown in Fig. 9 for the right-hand leaf only), they form coplanar extensions of the top panel 113 at opposite sides thereof. When one leaf is in its raised position, and the other in its lowered position, the construction may serve as a bar.

Each leaf is shown as consisting of a sheet metal panel having downwardly extending flanges 121 at its ends. These flanges have downwardly extending ears 123 at their inner ends. The mounting for each leaf whereby it is movable between its raised and lowered positions includes a pair of links 125 pivoted at their lower ends on the bolts 115 and pivotally connected at their upper ends to the outer edges of the leaves. As herein shown, the two links 125 for each respective leaf are the leg portions of a U-shaped length of pipe, the pivotal connection of the links to the leaf being effected by forming a bead 127 at the outer edge of the leaf around the portion 129 of the pipe which connects the two links. As shown in Fig. 15, the ends of the pipe may be flattened as indicated at 131 where the lower ends of the links 125 receive the bolts 115.

The mounting for each leaf 119 further includes rollers 133 on the inside of the ears 123 which ride in tracks 135 mounted on the end walls of the cabinet. Each track 135 consists of a C-shaped channel member bent to have a horizontal upper section 137 and sections 139 inclined downward away from the upper section. The tracks are secured on the outside of the end walls 99 by means of U-bolts 141. These bolts are located toward the lower ends of the inclined track sections 139 and the major portion of each track is located above the elevation of the top panel 113, with the horizontal track sections 137 centered with respect to panel 113. The open side of the C-shaped cross section of each track is directed outward away from the respective end wall. Links 125 are located on the outside of the tracks.

At the lower ends of the inclined track sections 139 are stops 143 engageable by the rollers 133 to limit their downward movement in the inclined track sections and to determine the lowered position of the leaves 119 in which they are coplanar with top panel 113 on opposite sides thereof. Stops 143 are constituted by the outwardly bent ends of sheet metal strips 145 held clamped by bolts 141 between the tracks and the end walls. The side margins of the top panel 113 are relieved as indicated at 147 to receive the inner marginal portions of the leaves 119 with the leaves flush with panel 113. The slope of

the inclined track sections **139** and the length of the links **125** are such that the leaves remain substantially horizontal as they move between the raised and lowered positions. In the raised position of a leaf, its respective rollers **133** are located in the horizontal sections **137** of the tracks **135** and its respective links **125** are inclined upward generally in alignment with the cabinet front or rear as the case may be. When the leaf is moved to lowered position, its respective rollers **133** ride down the respective inclined track sections **139**, and the respective links **125** swing outward and downward.

To hold each of the leaves **119** in its raised position, latching means is provided at each end of each leaf. As shown, the latching means comprises a spring latch rod **149** anchored at one end as indicated at **151** on the inside of end flange **121** and extending inward toward the inner edge of the leaf on the inside of the flange. Adjacent the anchor **151** the rod has a loop **153** around a stud **155**. Inward from the loop **153**, the rod is formed with a downwardly offset portion **157** which normally projects below the lower edge of the flange **121**. The rod is normally self-biased to a downward latching position determined by its engagement with projecting end portions **159** of the lower flange of a Z-bar **161** which is secured to the bottom surface of the leaf. At its inner end, the rod has a downturned portion **163** having an inwardly directed finger **165** at its lower end for latching engagement in a notch **167** formed in a latch plate **169** secured as by welding on the top of the horizontal track section **137**. To release the two latch rods at the ends of a leaf, it is simply necessary to reach under the flanges **121** at the ends of the leaf with the fingers, and raise the offset rod portions **157**. This withdraws the fingers **165** from the respective notches **167** to release the leaf so that it may be moved downward and outward to its lowered position.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As various changes could be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A convertible table unit comprising supporting means, a horizontal table top panel mounted on the supporting means at an elevation corresponding to normal table height, and at least one leaf mounted for movement between a raised position above the top panel wherein it provides a horizontal working surface at an elevation corresponding to counter height, and a lowered and outwardly offset position wherein it forms a generally continuous horizontal extension of said top panel at one side thereof, said leaf having a first surface which, when the leaf is in the raised position, faces downward and is spaced above and out of contact with the top panel.

2. A convertible table unit as set forth in claim 1 wherein the leaf is mounted for pivotal movement on an axis along one edge of the top panel and has a second surface which, in the raised position, faces upward and which, in the lowered position, faces downward.

3. A convertible table unit as set forth in claim 1 wherein the leaf is mounted to remain substantially horizontal in its movement between the raised and lowered positions.

4. A convertible table unit as set forth in claim 3 wherein the leaf is mounted for movement by means of a parallelogram linkage.

5. A convertible table unit as set forth in claim 3 wherein the leaf is mounted for sliding movement on the supporting means.

6. A convertible table unit as set forth in claim 3 wherein the leaf is mounted for sliding movement on the supporting means and supported by a link pivotally connected at one end to the supporting means and at its other end to the leaf.



7. A convertible table unit comprising supporting means, a table top panel mounted on the supporting means at an elevation corresponding to normal table height, and a pair of leaves mounted for movement between a raised position above the top panel wherein they provide a generally continuous horizontal working surface at an elevation corresponding to counter height, and a lowered and outwardly offset position wherein they form generally continuous horizontal extensions of said top panel at opposite sides thereof, each leaf being individually movable so that either one of the leaves may occupy its raised position and the other its lowered position for utilization of the table construction as a bar, each of said leaves having a first surface which, when the leaves are in the raised position, faces downward and is spaced above and out of contact with the top panel.

8. A convertible table unit as set forth in claim 7 wherein said supporting means include stops above the top panel for engagement by the leaves to determine the raised position thereof.

9. A convertible table unit comprising supporting means, a table top panel mounted on the supporting means at an elevation corresponding to normal table height, said supporting means comprising end members which extend above the top panel and have horizontal upper edges at an elevation corresponding to counter height, and a pair of leaves mounted for pivotal movement on axes along opposite edges of the top panel for swinging movement between a raised position above the top panel and a lowered and outwardly offset position, said leaves having first panels longer than the distance between the end members which in the raised position bear at their ends on the upper edges of the end members and provide a generally continuous horizontal working surface at an elevation corresponding to counter height, and having second panels shorter than the distance between the end members which in the raised position are below the first leaf panels and which in the lowered position are above the first leaf panels and form horizontal extensions of the top panel at opposite sides thereof.

10. A convertible table unit as set forth in claim 9 wherein the second leaf panels, in raised position, converge toward one another in upward direction from the opposite side edges of the top panel.

11. A convertible table unit comprising supporting means, a table top panel mounted on the supporting means at an elevation corresponding to normal table height, end panels carried by the supporting means spaced outward from the ends of the top panel, said end panels extending above the top panel, a pair of leaves mounted by means of parallelogram linkages for swinging movement between a raised position at counter height above the top panel and a lowered and outwardly offset position wherein they form extensions of the top panel at opposite sides thereof, said linkages including links pivoted at their lower ends on the supporting means, pivotally connected to the leaves at their upper ends, and operating in the spaces between the ends of the top panel and said end panels.

12. A convertible table unit as set forth in claim 11 wherein the raised and lowered positions of the leaves are determined by engagement of the linkages with stops mounted on the supporting means.

13. A convertible table unit comprising supporting means, a table top panel mounted on the supporting means at an elevation corresponding to normal table height, and a pair of leaves mounted for movement while remaining substantially horizontal between a raised position at counter height above the top panel and a lowered and outwardly offset position wherein they form extensions of the top panel at opposite sides thereof, said mounting including links pivoted at their lower ends on the sup-

porting means and pivotally connected to the leaves at their upper ends, downwardly and outwardly inclined tracks mounted on the supporting means, and means on the leaves riding on the tracks.

14. A convertible table unit comprising supporting means, a horizontal table top mounted on the supporting means at an elevation corresponding to normal table height, and at least one leaf pivotally mounted on the unit for swinging movement on a horizontal axis parallel to one edge of said top, said leaf including a panel parallel to and spaced from said axis a distance greater than the thickness of said panel, said panel having two edges parallel to said axis and defining with said axis a triangular figure, said leaf being swingable on said axis between a raised position above said top wherein said panel is above said axis and wherein a first surface of the leaf faces upward and provides a horizontal working surface spaced above said top and a lowered and outwardly offset position wherein a second surface of the leaf faces upward and provides a generally continuous horizontal extension of said top from said one edge of said top.



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