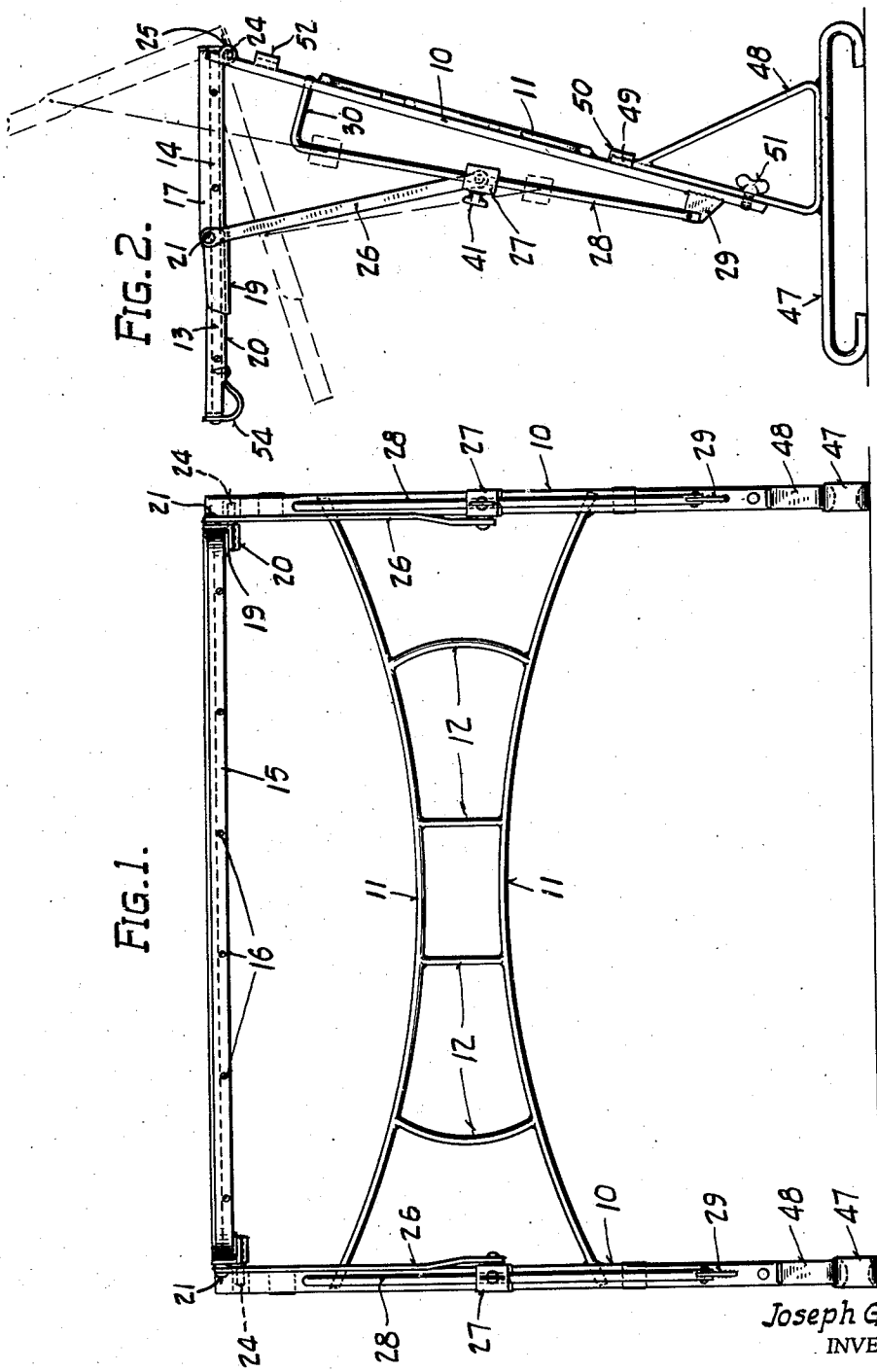
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CONVERTIBLE TABLE

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FIG. 3.

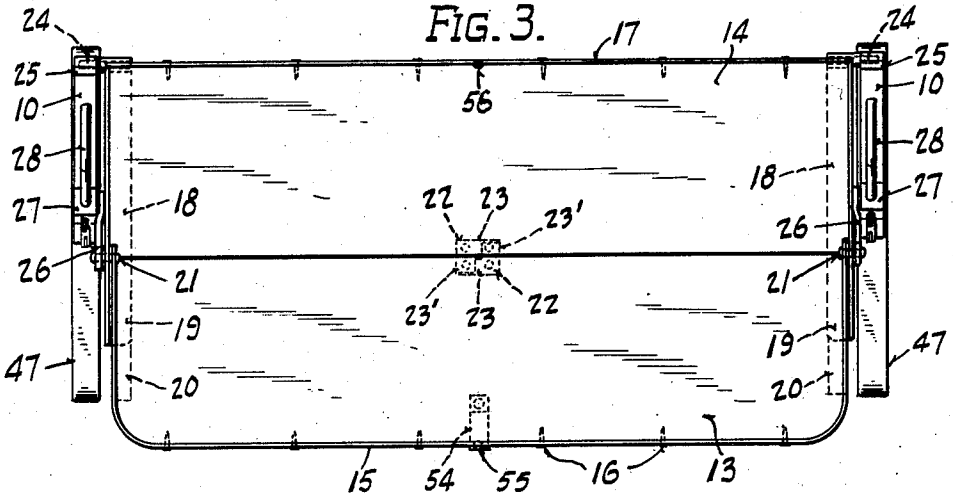


FIG. 4.

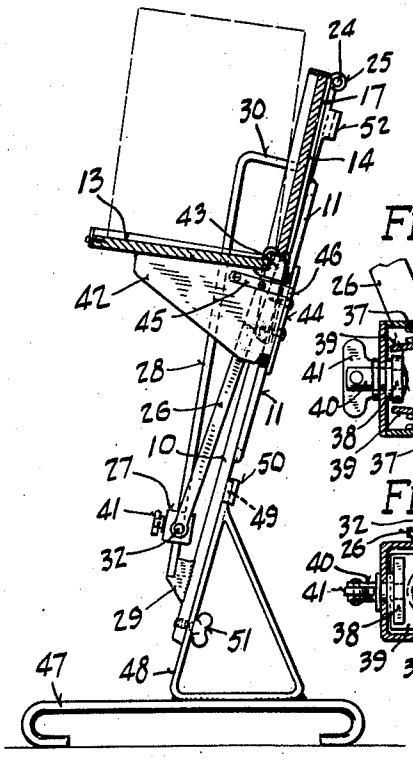


FIG. 5.

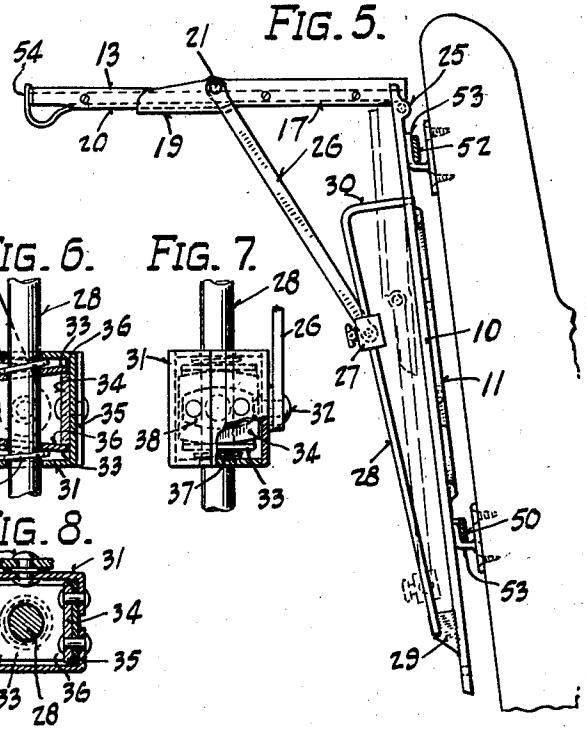


FIG. 6.

FIG. 7.

FIG. 8.

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CONVERTIBLE TABLE

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3 Claims. (Cl. 311—17)

This invention relates to convertible tables.

One object of the present invention is to provide an improved table that is readily convertible to home or automobile use.

Another object is to provide an improved table which, when not in use, may be readily reduced to a flat, compact form convenient for storage.

Other objects and advantages will appear from the following description of a table constructed in accordance with the present invention.

In the accompanying drawings:

Figure 1 is a front elevation of a table embodying the present invention arranged for home use.

Fig. 2 is a side elevation thereof and showing in broken lines the various angular positions that may be assumed by the table top when used as a desk or music rack.

Fig. 3 is a top plan view of the table shown in Fig. 1.

Fig. 4 is a vertical section illustrating the position of the table top when used as a book rack.

Fig. 5 is a side elevation of the table showing it mounted for use in an automobile.

Fig. 6 is a vertical elevation, on a larger scale, of a clamp employed in the table shown.

Fig. 7 is a rear elevation, and Fig. 8 a horizontal section of the clamp shown in Fig. 6.

The table selected for illustration includes a substantially flat supporting frame which in this instance comprises a pair of horizontally spaced uprights in the form of bars 10 rigidly joined by upper and lower horizontally extended rungs 11 which are braced by appropriate elements 12. The rungs 11 are joined to the bars 10 and brace members 12 preferably by welding.

The frame supports a folding table top comprising two hingedly connected panels 13 and 14. The panels are preferably of wood, the forward and end edges of the forward panel 13 being reinforced by metal stripping 15 fixed thereto by screws 16 or the like, and the rear and end edges of the rear panel 14 being similarly reinforced by metal stripping 17. The stripping at each end of the rear panel 14 is of sufficient width to permit the same to be laterally bent into surface contact with the under face of the panel, as indicated at 18, and is extended forwardly beneath the panel 13 to provide support for the latter, as indicated at 19. The stripping at each end of the forward panel 13 is also preferably lapped under the latter, as indicated at 20, to protect the same. The two panels are hingedly jointed by appropriate hinge pins 21, projecting through the adjacent ends of the reinforcing stripping 15 and 17.

The adjacent edges of the two panels 13 and 14 are preferably braced against sagging by appropriate means, such as a pair of metal plates 22 attached to the under sides thereof. The plates shown at 22 are L-shaped, each having one leg 23 anchored to the bottom of one panel adjacent the edge thereof and a second leg 23' projecting beyond the edge and beneath the leg 23 of the other plate.

The rear panel 14 is hingedly connected to the uprights 10 of the supporting frame by a pair of hinge pins 24 anchored to the stripping 17 and projecting into appropriate hollow bosses 25 formed on the uprights adjacent the upper ends thereof. The table top is additionally adjustably supported by a pair of struts 26 respectively engaged at their upper ends with the pins 21 hereinabove described and at their lower ends with appropriate clamps 27 slidably mounted on guide rods 28 carried by the uprights 10. In this instance each guide rod 28 is spaced forwardly of one of the uprights 10, each being attached at its lower end to a bracket plate 29 welded to the lower end of an upright 10, and each having its upper end 30 bent, as indicated and anchored in an upright adjacent the upper end of the latter.

The clamps shown at 27 are of novel form particularly adapted for the purpose of adjustably supporting the struts 26. As indicated particularly in Figs. 6, 7 and 8 each clamp is contained in a box-like housing 31 slidably mounted on a guide rod 28 and having a pin 32 projecting from one side thereof to receive and support a strut 26. Within the housing 31 is a pair of clamp plates 33 perforated to slidably receive the guide rod 28 and spaced apart by a plate 34 fixed to the rear wall 35 of the housing and providing a fulcrum for one edge 36 of each plate. Both clamp plates are normally urged toward each other by springs 37 which coact with the fulcrum plate 34 to cant the clamp plates into gripping engagement with the guide rod. In that normal spring pressed position, the clamp plates securely retain the housing 31 in fixed position on the guide bar.

The clamp plates 33 may be released from gripping engagement with the guide rod by separating the plates toward a position of relative parallelism, and for this purpose a double lobed cam 38 is provided between the edges 39 of the clamp plates. In this instance the cam 38 is carried by a stub shaft 40 journalled in the front

wall of the housing 31 and carrying a suitable external actuator 41. The arrangement is such that by rotating the actuators 41 and cams 38 of both clamp units, the clamp plates 33 may be separated into rod releasing position, so as to permit the housings 31 to be adjusted up or down along the guide rods and thereby adjust the table supporting struts 26. It will of course be understood that, when the desired adjustment has been made, the housings 31 may again be secured in the adjusted positions along the guide rods by simply rotating the cams 38 so as to release the clamp plates 33 and permit them to reassume their normal rod gripping positions.

By adjusting the clamp housings 31 along the guide rods 28, the table top may be made to assume the horizontal position shown in full lines in Figs. 2 and 5, or into a compact folded position against the front of the supporting frame, as indicated in Fig. 5. When in the horizontal position shown, the forward panel 13 of the table extends forwardly and is supported by the forward extension 19 of the metal stripping 17, and when in the folded position of Fig. 5, the forward panel may be folded upwardly against the panel 14.

The table top may also assume the upwardly inclined position, shown in dotted lines in Fig. 2, in which position it may serve as a music or similar rack, or it may also assume the downwardly inclined position, shown in dotted lines in Fig. 2, in which position it will conveniently serve as a desk.

Or as indicated in Fig. 4, the rear panel 14 may be folded down against the supporting frame with the panel 13 projecting forwardly therefrom to provide a convenient book or magazine rack. When thus used, the projecting panel 13 may be additionally supported by an appropriate forwardly projecting bracket plate 42 removably attached to the supporting frame. In this instance the bracket plate is fashioned to provide a shoulder 43 engageable behind the rear edge of the projecting panel 14 and to provide upper and lower notches to receive the upper and lower rungs 11 of the supporting frame. A bar 44 attached to the rear edge of the bracket plate 42 serves to retain the same in position on the rungs 11. A strap 45 attached to the side of the bracket plate 42 is equipped with an end hook 46 adapted to releasably engage one of the vertical brace members 12 of the supporting frame to releasably retain the bracket plate in upright position adjacent that brace member.

When used in the home, the supporting frame is mounted upon appropriate feet 47 releasably secured to the lower ends of the uprights 11. In this instance each foot 47 is welded or otherwise fixed to the base 48 of a triangular mounting frame having a sloping side adapted to receive one of the uprights 10 and to support the same in a position somewhat inclined rearwardly from the vertical. The mounting frame is removably attached to the upright by a projection 49 at the apex of the bracket that engages in an eye 50 provided on the upright and by a winged screw 51 that extends through the sloping side of the frame into the upright.

Provision is also made for mounting the device in an automobile and for that purpose an additional eye 52 provided on each upright 10 adjacent the upper end thereof. The eyes 50 and 52 on each upright 10 are disposed to receive supporting bracket hooks 53 appropriately fixed to the back of an automobile seat, as indicated in Fig. 5.

The fact that the supporting frame including the uprights 10 is attached to the table top adjacent the rear edge thereof, makes it possible to mount the device against the back of the seat in the manner just described. It will also be noted that when mounted on the feet 47, the sloping arrangement of the supporting frame relative thereto positions the feet in a stable position substantially centrally below the table top, even though the frame is attached to the table top adjacent the rear edge thereof.

Any appropriate means, such as a clip 54, may be employed to releasably retain the front panel 13 folded against the rear panel 14, when in the folded position of Fig. 5. In this instance the clip 54 is mounted adjacent the forward edge of the forward panel 13 at a mid point thereof and is provided with a recess 55 adapted to receive a small projection 56 formed on the rear edge stripping 17 of the rear panel 14 when the panel 13 is folded thereagainst.

Various changes may be made in the embodiment of the invention hereinabove specifically described without departing from or sacrificing the advantages of the invention as defined in the appended claims.

I claim:

1. A convertible table comprising a substantially flat upright supporting frame, a table top hingedly attached adjacent one edge to said frame and foldable downwardly against the latter, said table top comprising two sections foldable one upon the other, hinge connections between said sections, means fixed to one of said sections and projecting beneath the other of said sections to support the latter, a pair of supporting struts hingedly connected at their upper ends to said table top adjacent said hinged connections, means including releasable clamps for adjustably connecting the lower ends of said struts to said frame, and means for supporting said frame.

2. A convertible table comprising a substantially flat upright supporting frame, a table top hingedly attached adjacent one edge to said frame and foldable downwardly against the latter, said table top comprising two sections foldable one upon the other, hinge connections between said sections, means fixed to one of said sections and projecting beneath the other of said sections to support the latter, a pair of supporting struts hingedly connected at their upper ends to said table top adjacent said hinge connections, a pair of guide rails fixed to said frame, a pair of clamps adjustable along said rails, hinge connections between said clamps and the lower ends of said struts, respectively, and means for supporting said frame.

3. A convertible table comprising a substantially upright supporting frame, a table top hingedly connected adjacent one edge to said frame, said table top comprising two hingedly connected sections, supporting means for one of said sections adjustable to permit said table top to be angularly adjustable relative to said frame, said last named section having means attached to its edges and projecting beneath the other of said sections to support the latter, and means for supporting said frame.

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