Sept. 9, 1947. A. BOHMER 2,427,121

FOLDING TABLE AND SEAT UNIT

Filed July 13, 1940

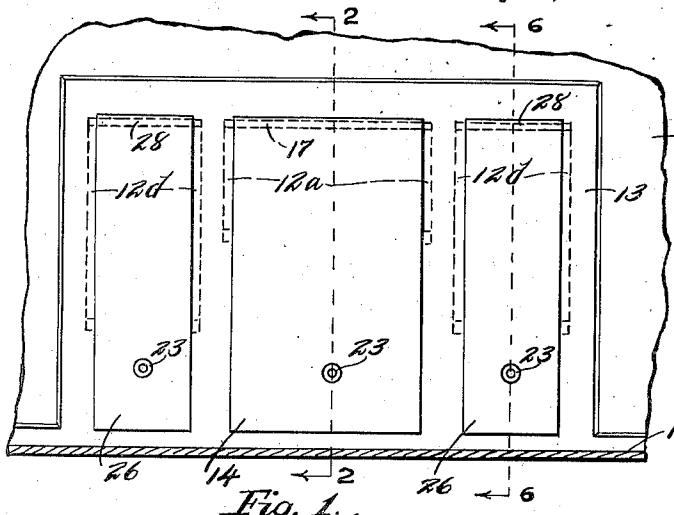


Fig. 1.

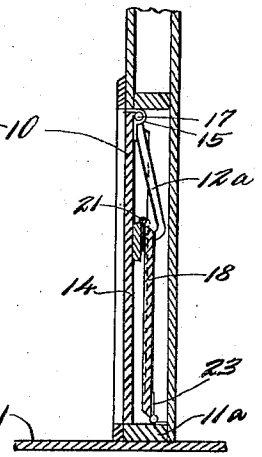


Fig. 2.

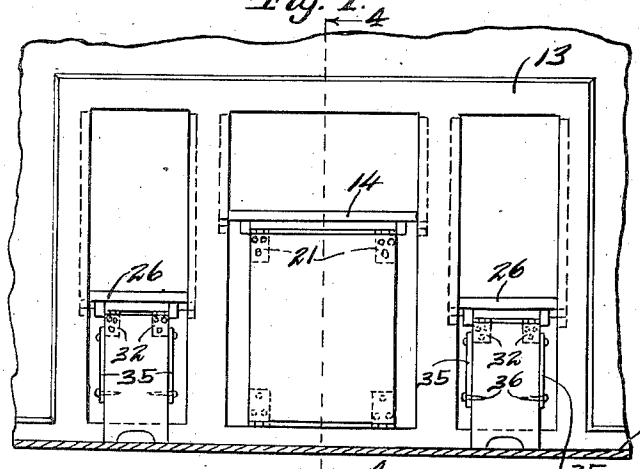


Fig. 3.

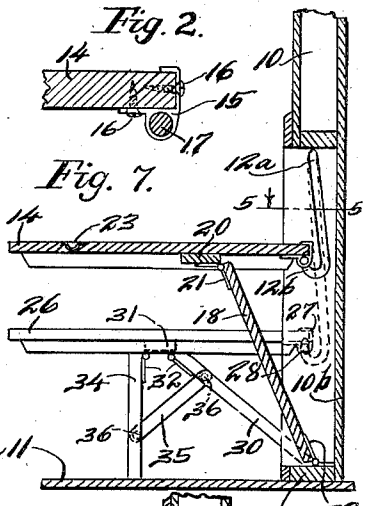


Fig. 7.

Fig. 4.

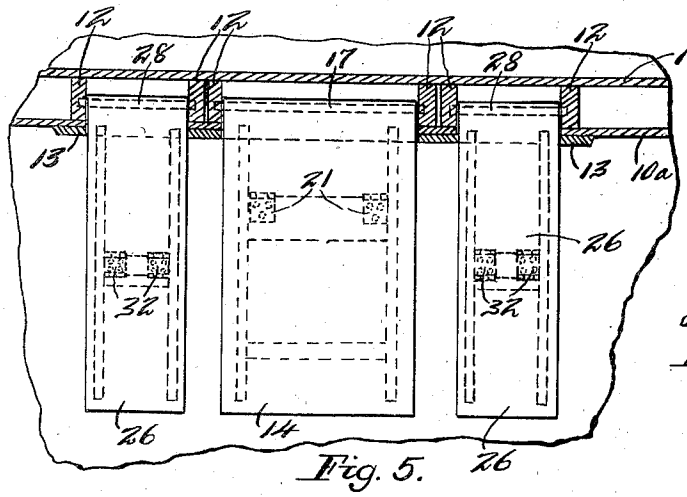


Fig. 5.

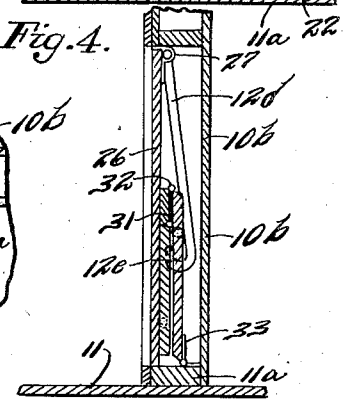


Fig. 6. Inventor
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FOLDING TABLE AND SEAT UNIT

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2 Claims. (Cl. 155—124)

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This invention relates to a folding seat and table construction and while the invention might have various applications, it is particularly designed so that the table and seats may be disposed in a recess in substantially vertical position and may be moved outwardly from said recess to be disposed in substantially horizontal position.

In many modern rooms, apartments and homes it is desirable to have a table or a table and seats therefor which may be folded up and disposed in vertical position in a wall or cabinet so as to provide more room when they are not in use.

It is an object of this invention to provide a simple and efficient structure of table or of table and adjacent seats which may be easily and quickly disposed in a recess in a wall or in a recess in a cabinet and which may also be easily and quickly withdrawn and disposed in horizontal position extending outwardly from said recess for use.

It is another object of the invention to provide a unit consisting of a table and a seat at either side thereof adapted to be swung out of a recess into operative position or to be quickly swung into said recess into vertical position so as to occupy very small space.

It is more specifically an object of the invention to provide a table and also seats if desired carrying means receivable in slots in spaced supporting members and having link-like members connected thereto whereby said table and/or seats may be disposed in substantially vertical position between said supporting members or may be swung outwardly into horizontal and operative position.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to similar parts throughout the several views and in which—

Fig. 1 is a view in front elevation of the device;

Fig. 2 is a view in vertical section taken on line 2—2 of Fig. 1 as indicated by the arrows;

Fig. 3 is a view in front elevation with the table and seats in operative positions;

Fig. 4 is a vertical section taken on line 4—4 of Fig. 3 as indicated by the arrows;

Fig. 5 is a top plan view of the device as seen in Fig. 3, certain parts being shown in section on line 5—5 of Fig. 4 as indicated by the arrow; and

Fig. 6 is a view in vertical section taken on line 6—6 of Fig. 1 as indicated by the arrows.

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Fig. 7 is a detail view of the construction at the secured end of flat member 10.

Referring to the drawings, a member 10 is shown which may be a wall of a room or a cabinet. A floor or other supporting surface or means 11 is shown. Member 10 is shown as having a front portion or partition 10*a* and a rear portion or partition 10*b* spaced therefrom. The portions 10*a* and 10*b* may form spaced parts of a wall of a room or they may form the front and rear walls of a narrow cabinet. While member 11 might form the wall supporting means or base member, in Fig. 2 another base member 11*a* is shown seated on member 11. Spaced supporting members 12 extend vertically in spaced relation from either member 11 or member 11*a*. It will be seen as shown in Fig. 5 that the supporting members 12 are arranged in three pairs. A front member 13 is shown which may be a finishing plate or covering on wall 10 about the device or it may be a finishing plate on the cabinet. The central pair of members 12 have slots 12*a* in their adjacent sides, said slots having a long main portion extending upwardly and slightly forwardly, said slots being reversely curved at their lower ends and having short upwardly extending forward portions 12*b* having closed ends. A flat member 14 is provided, the same being of a width to pass easily between the central pair of members 12, said member 14 having brackets 15 secured thereto at its inner end by screws 16, which brackets have cylindrical openings in which is secured a rod 17. The rod 17 projects at either side of member 14 and has its ends disposed in the slots 12*a*. Member 14 is shown as having hinged or pivoted thereto at its underside a link-like member 18. While this member might be variously connected, in the embodiment of the invention illustrated member 14 is shown as having a bar or board 20 secured to its underside and a hinge 21 is secured to the underside of member 20 and to the adjacent side of member 18. As shown in Fig. 3 member 18 is of considerable width and two of the hinges 21 are shown. Member 18 is pivotally or hingedly connected at its lower end to member 11*a*, a hinge 22 being connected to the rear side of member 18 and to the adjacent top side of member 11*a*. Member 14 is shown as having secured therein a plate 23 having a cylindrical depression therein, which plate forms a finger hold for manipulating member 14.

Between each of the side pairs of members 12 is disposed a flat member 26. Members 26 will each carry brackets 27 at their inner ends similar to brackets 15 already described in which brackets

27 is disposed a rod 28. The said outer members 12 have slots 12d in their adjacent sides having long upwardly extending portions which are inclined somewhat forwardly. Slots 12d are reversely curved at their lower ends and have short upwardly extending portions 12e having closed ends. The ends of rod 28 extend into the slots 12d and are slidable therein. Each member 26 has pivotally or hingedly connected thereto a member 30. While members 30 could be variously connected, in the embodiment of the invention illustrated a board or bar 31 is shown secured to the underside of member 26 and a hinge 32 is connected to bar 31 and to the adjacent side of member 30. Member 30 is also connected at its lower end by a hinge 33 to the top of member 11a, said hinge being disposed at the rear side of member 30. It will be seen as shown in Fig. 3 that members 30 are of considerable width. A leg member 34 is secured to the underside of member 26, the same being shown as connected to bar 31 by hinge 32. Leg 34 is shown as of the same width as member 30 and members 30 and 34 are connected at each side by links 35, the ends of said links being bored and connected by screws 36. Each member 26 is provided with a plate 23, the same as already described as carried by member 14.

When the members 14 and 26 are in inoperative position they occupy the positions shown in Figs. 2 and 6. At this time member 14 is in substantially vertical position between the central pair of supporting members 12 and the rod 17 is adjacent the top of slots 12a. Member 18 is folded about its hinges 21 and 22 and is likewise in substantially vertical position in the rear of member 14. When it is desired to move member 14 to extended or operative position, the operator engages plate 23 with one of his fingers and merely draws the lower or free end of member 14 forwardly. The ends of rods 17 move downwardly in slots 12a and member 18 swings outwardly. The member 14 is swung to horizontal position and the ends of rod 17 move into the portions 12b of slots 12a. The member or table 14 is now in operative position as shown in Figs. 3, 4 and 5. The table remains firmly in this position and it should be noted that any pressure on the table outwardly of member 18 causes the inner end of the table to tend to swing upwardly so that the ends of rod 17 engage the closed ends at the top of slot portions 12b. The weight on the table is thus firmly carried by rod 17 and the closed ends of said slot portions. To again place the table in inoperative position the outer or free end is lifted slightly and given a rearward movement. This causes rod 17 to move around in the lower curved portions of slots 12a and said rod will then move upwardly in the long portions of said slots and the table will swing into the vertical position shown in Fig. 2, link 18 swinging therewith into the position shown in Fig. 2. The table is thus again brought into the recess in the wall or cabinet between members 12. It will remain in this position until again drawn out.

The operation of members 26 which form seats at either side of table 14 is quite similar to that of the said table. To swing these members outwardly the operator need only pull outward slightly on the members 23 and the ends of rod 28 then slide down in slots 12d and pass around the lower curved ends thereof into the portions 12e. Members 30 swing outwardly and leg 34 comes into vertical position due to its connection to member 30 by links 35. Since the members 26 form seats and will carry a great deal more weight than table 14 it is desirable to have the extra support of leg 34. It will be seen that downward movement on the members 26 outwardly of member 34 will cause the inner end to tend to move upwardly and rods or pins 28 will press against the closed upper ends of slot portions 12e. The members 26 are thus very firmly and strongly held and will easily carry the weight of two heavy persons. To swing the members 26 into inoperative position the operator merely lifts up slightly on the outer ends thereof and then pushes rearwardly. This causes the ends of rod 28 to move around the curved lower ends of slots 12d and members 26 can then be swung inwardly, said ends of rod 28 moving upwardly in slots 12d and members 30, 34 and 35 folding into the position shown in Fig. 6. The parts are so disposed that they will remain in the positions shown in Fig. 6 until members 26 are again pulled outwardly. It will be seen that the front surfaces of members 14 and 26 when in their inoperative positions are substantially flush with the front portions 10a of member 10. They are thus well out of the way and if member 10 is a wall of a room they are housed within the wall. Said members 14 and 26 thus take up no space in the room when they are not in use.

From the above description it will be seen that I have provided a very simple and efficient folding or disappearing unit comprising a table and the cooperating seats. The seats are disposed well below the level of the table so that persons can conveniently sit at the table thereon. A unit is thus formed of the table and seats which is very suitable for a breakfast nook or for any other use that may be desired. The table and seats can be moved to operative position with very slight effort and can be easily and quickly moved to inoperative position with a minimum of effort. The members 14, 26 and member 13, if used, can be nicely finished and be made to harmonize with the other woodwork or furniture in the room. The structure as stated is simple and can be easily and inexpensively installed.

The device has been demonstrated in actual practice and found to be very successful and efficient.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the parts, without departing from the scope of applicant's invention, which generally stated, consists in a device capable of carrying out the objects above set forth, in the parts and combinations of parts disclosed and defined in the appended claims.

What is claimed is:

1. A folding device for forming a seat having in combination. a horizontally extending base member, a pair of spaced side members extending vertically from said base member and having slots of uniform width on their adjacent sides, said slots extending upwardly and inclined somewhat forwardly having upper end portions extending to substantially the top of said side members, said slots at their lower ends being curved forwardly and having short upwardly extending portions, a flat rigid member having one end disposed between said side members, brackets secured to the sides of said member and at its inner end, a rod extending through and between said brackets and held in said brackets, the same projecting beyond said rigid member into said slots respectively and movable therein, a bar secured to the

underside of said rigid member substantially at the longitudinal center thereof, a hinge having a central portion secured to the bottom of said bar and having end portions pivoted respectively at the ends of said central portion, a board-like link member connected at its upper end to one of said end portions of said hinge and extending downwardly and inwardly to a point above said base member, a hinge having one butt secured to the top and rear side of said base member and having another butt secured to the inner side of said board-like link member and a board-like leg member secured to the outer and upper side of the other end portion of said first mentioned hinge and a link connected to said leg member below the vertical center thereof and connected to said board-like link member adjacent the first mentioned end portion of said first mentioned hinge whereby said flat rigid member may be moved to outwardly extending horizontal position with the ends of said rod in the last mentioned portions of said slots and prevented from inward movement thereby with said board-like link extending upwardly and outwardly and said leg portion extending vertically and said inner

end of said rigid member may be depressed and said rod and end moved upwardly between said side members to bring the upper side of said rigid member in vertical position between said side members.

2. The structure set forth in claim 1, the ends of said board-like link being beveled to extend substantially parallel to the top of said base member and the bottom of said flat rigid member when the latter is in extended position and a finger hold in the top of said flat rigid member for moving the same, said finger hold being disposed entirely below the top surface thereof.

ALOIS BOHMER.

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The following references are of record in the file of this patent:

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