

March 12, 1963

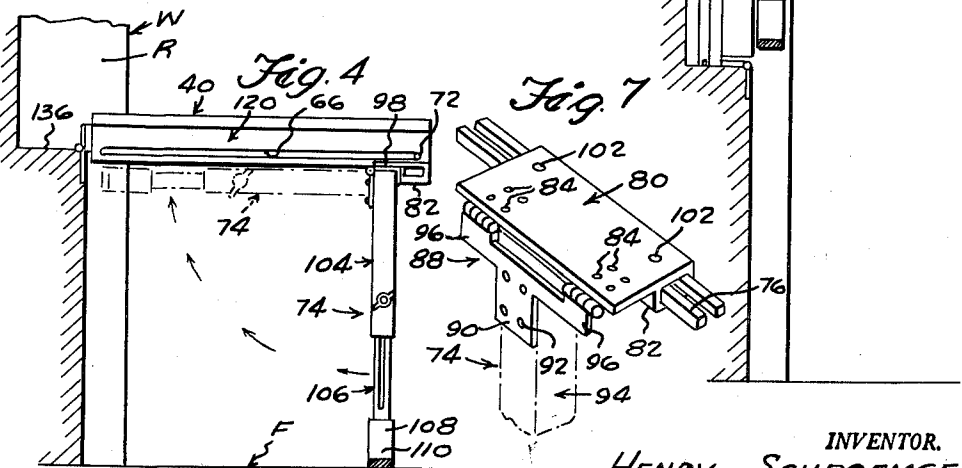
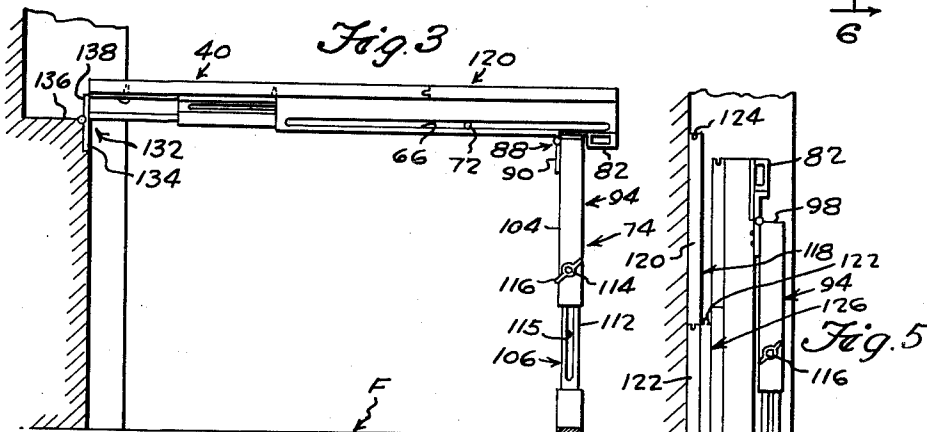
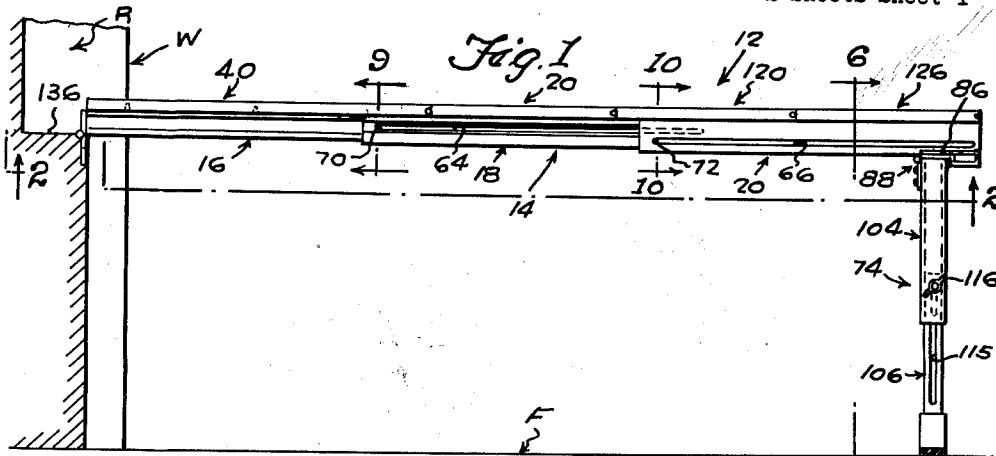
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3,080,832

FOLD-DOWN EXTENSION TABLE

Filed Oct. 21, 1960

2 Sheets-Sheet 1



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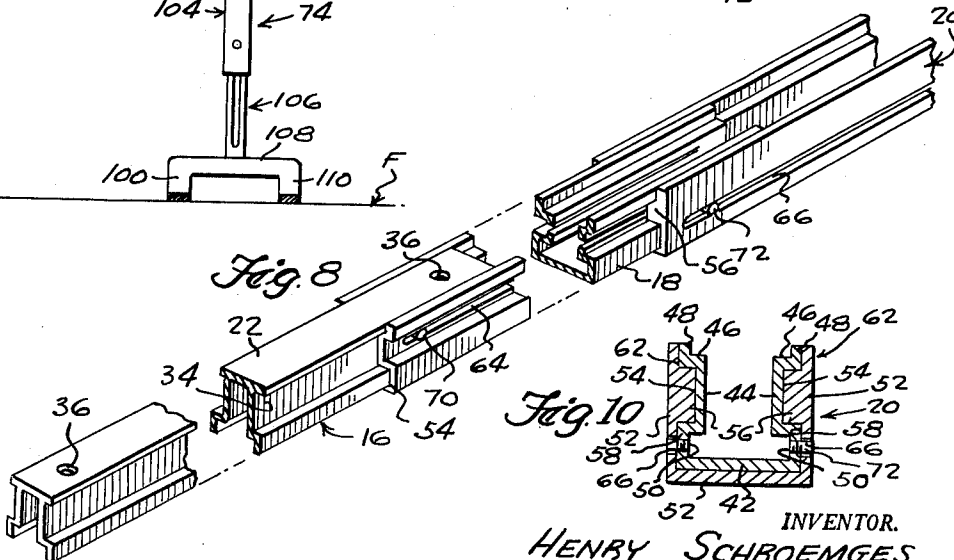
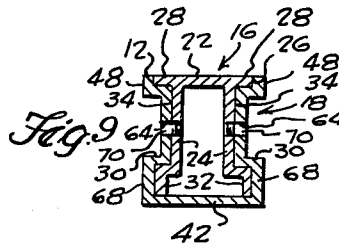
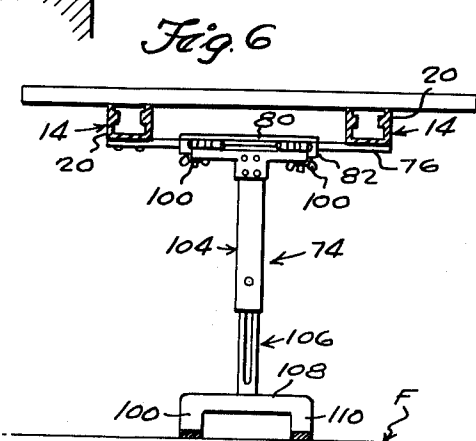
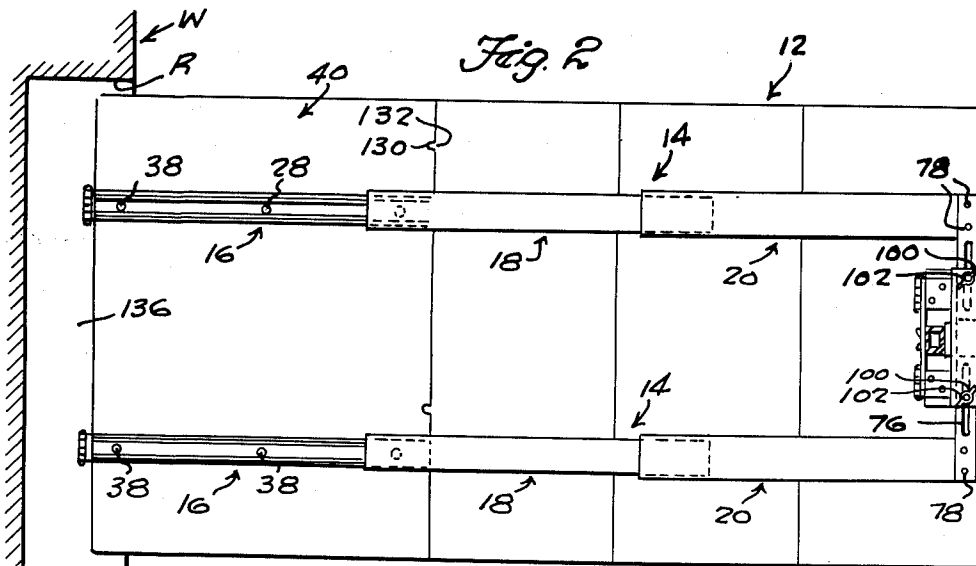
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### FOLD-DOWN EXTENSION TABLE

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## FOLD-DOWN EXTENSION TABLE

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4 Claims. (Cl. 108-13)

This invention relates to a novel fold-down wall-mounted extension table.

The primary object of the invention is the provision of a table of the kind indicated which is more compact and more easily operated into stored and set-up positions, and which is more rigid and stable when set up and when in storage position, whereby the table is rendered more acceptable and suitable for use in house trailers, small apartment dining areas, compact kitchens, and the like, where table space is limited, which table is simple and inexpensive in construction and easily assembled.

Another object of the invention is the provision, in a table of the character indicated above, of novel and improved telescopic slide means for supporting panels or leaves of the top of the table, the slide means being composed of rigid hollow mutilated rectangular sections which are in full sliding and supporting relationships to each other, whether the table is in a fully extended position, a partially extended position, or a fully retracted position, and while the top is in its up-folded storage position.

A further object of the invention is the provision of a table of the character indicated above wherein a single adjustable height leg support is used on the free end of the table, the leg support being foldable against the table in the storage position thereof, and the leg support being adjustable crosswise of the table to provide for selective placement of the leg support on a surface, such as a floor.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, for purposes of illustration only, a specific form of the invention is set forth in detail.

In the drawings:

FIGURE 1 is a side elevation of a table of the present invention, showing the same in set-up position and fully extended and the supporting wall in vertical section.

FIGURE 2 is a bottom plan view of FIGURE 1.

FIGURE 3 is a view like FIGURE 1, showing the table in partially extended position.

FIGURE 4 is a view like FIGURE 3, showing the table in fully retracted position.

FIGURE 5 is a side elevation showing the table in up-folded storage position, and the supporting wall in vertical section.

FIGURE 6 is a vertical transverse section taken on the line 6-6 of FIGURE 1.

FIGURE 7 is an enlarged fragmentary perspective view of the slide and hinge assembly of the leg support.

FIGURE 8 is an enlarged fragmentary perspective view, partly broken away and in section, of an extensible slide.

FIGURES 9 and 10 are vertical transverse sections taken on the lines 9-9 and 10-10 of FIGURE 1.

Referring in detail to the drawings, wherein like numerals designate like parts throughout the several views, the illustrated table, generally designated 12, is shown as being hinged on a wall W, at a selected height above a floor F, to fold up to storage position within a recess R in the wall.

The table 12 comprises a pair of similar laterally spaced, parallel slides 14 which are of preferably stamped or otherwise formed heavy gauge sheet metal. Each slide is composed of a suitable or desired number of

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telescoped sections, here shown as being an inner section 16, an intermediate section 18, and an outer section 20.

The inner slide section 16, as shown in FIGURES 8 and 9, has the form of a downwardly opening rectangular cross section channel having a top wall 22 and parallel side walls 24, which are offset laterally inwardly from the side edges 26 of the top wall, so as to define lateral to flanges 28. The lower end portions of the side walls 24 are formed as reclining L-shapes so as to provide, at the outer sides of the side walls, shoulders 30 of the same width as the flanges 28, and depending flanges 32 extending downwardly from the outer edges of the shoulders 30 and constituting external ribs. In effect, the sides of the inner slide sections are provided with longitudinal grooves 34, which are defined by the side walls 24, the top flanges 28, and the shoulders 30. The top wall 22 of each inner slide section 16 is provided with longitudinally spaced screw holes 36, through which screws 38 are passed and threaded into a fixed stationary table top panel 40. The fixed panel 40 is preferably wider than the distance between the slides 14, and of the same length as the inner slide sections 16, as shown in FIGURES 2 and 4. The length of the fixed table top panel 40 is preferably sufficient to provide adequate dining space for one or two persons, in the fully elevated position of the table, as shown in FIGURE 4.

Each intermediate slide section 18 is externally telescoped on an inner slide section 16, and is in the form of an upwardly opening rectangular cross section channel, having a flat bottom wall 42 and upstanding side walls 44. The side walls are laterally inwardly deformed to provide, along the upper edges thereof, laterally out-standing horizontal top flanges 46 and upstanding side flanges 48, and along the lower edges thereof, with laterally inwardly opening rectangular internal grooves or slideways 50. The spaces between the side walls, the top flanges 46 and the top walls 52 of the slideways 50 define external longitudinal grooves 54. As shown in FIGURE 9, the lateral top flanges 28 of the inner slide section 16 seat slidably upon the horizontal top flanges 46 of the intermediate slide section 18, the side walls 44 of the intermediate section 18 fit slidably in the external grooves 34 of the inner section 16, and the shoulders 30 and the depending flanges 32 of the inner section 16 slidably engage in the internal grooves 50 of the intermediate section 18, with the desired result that up and down play and side play between the slide sections 16 and 18 is eliminated and substantially the full cross sections of these slide sections are in supportive engagement, for added strength and rigidity.

Each outer section 20, which is externally telescoped on an intermediate section 18, and is in the form of an upwardly opening rectangular channel having, as shown in FIGURE 10, a flat bottom wall 52 and upstanding side walls 54. On the laterally inward sides of the side walls 54 are longitudinal ribs 56 which are spaced upwardly from the bottom wall 52 to define, with the bottom wall and the sidewalls, internal lower longitudinal grooves or slideways 58, which conformably receive the slideways 50 of the intermediate slide section 18. The ribs 56 are spaced downwardly from the upper edges 60 of the sidewalls 54 so as to define, with the sidewalls, internal upper grooves or slideways 62, in which the lateral horizontal top flanges 46 and side flanges 48 of the intermediate slide section 18 engage, with the ribs 56 conformably engaged in the external grooves 54 of the intermediate section 18.

Means for stopping the slide sections, in the fully extended and fully retracted positions, preferably takes

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the form of longitudinal slots 64 formed in the side wall 44 of the intermediate section 18, and longitudinal slots 66 formed in the webs 68 of the slideways 58 of the outer section 20; and stop pins 70 and 72 which severally project outwardly from the side walls 44 of the inner section 16, near the outer ends thereof and from the slideway webs 68 of the intermediate section 18, near the inner ends thereof, as shown in FIGURES 9 and 10, respectively. The slide sections 16, 18 and 20, are preferably of substantially the same length, so that, as shown in FIGURES 4 and 5, they are in coextensive and superimposed relationship, in the fully retracted position of the table 12.

The table 12 is supported in horizontal set-up position by means of a leg support, generally designated 74, which comprises, as shown in FIGURES 2, 6 and 7, a pair of horizontal transverse parallel rectangular slide bars 76 which extend between the two slides 14, at the outer ends thereof, and are fixed to the undersides of the outer slide sections 20, as indicated at 78. A transversely elongated horizontal plate 80 has a closed rectangular channel 82 at its underside along its outer edge, which slidably receives the slide bars 76. Fixed, as indicated at 84, to the underside of the plate 80 along the rear edge thereof are leaves 86 of a hinge 88 which includes a plate having a mounting 90, fixed, as indicated at 92, to the inward side of a leg 94, and lateral arms 96, in the form of hinge leaves which are opposed to and are interdigitated with the hinge leaves 86. This arrangement enables the leg 94 to be folded close to and parallel with the undersides of the outer slide sections 20, in the up-folded position of the table, shown in FIGURE 5, and supportive engagement of the squared upper end 98 of the leg with the underside of the plate 80, in the set-up position of the table, as shown in FIGURE 8, with the outer side of the leg in stop engagement with the adjacent side of the channel 82.

For adjusting the leg support 74 crosswise of the table 12, the plate 80, carrying the leg 94 is slid along the slide bars 76, in the desired direction, to the desired position, wherein the support can be locked in position by means of wing nuts 100 on the lower ends of bolts 102 which are secured to the plate 80 and extend downwardly between the slide bars 76.

The leg 94 is vertically adjustable, for levelling the table on angled or uneven surfaces, and comprises a rectangular tubular upper section 104, and an inverted T-shaped lower section 106. The lower section 106 comprises a transversely elongated horizontal foot portion 108 having depending preferably padded feet 110 on its ends, and a centered upstanding rectangular cross section standard 112, which is slidably telescoped through the lower end of the upper section 104. For releasably locking the lower leg section 106 in vertically adjusted position and retaining the standard 112 in the upper section, a bolt 114 extends across the upper section and through a longitudinal slot 115 formed in the standard 112, and has a wing nut 116 thereon to be tightened against the exterior of the upper section.

A number of extra removable table top leaves are provided for installation upon the slides 14 when the table 12 is in partially or fully extended positions, outwardly of the fixed table top panel 40. Herein shown, in FIGURES 1, 2, 3 and 5, is a double leaf 118, composed of two similar relatively narrow leaves 120, connected together by suitable means, such as pins 122 and sockets 124; and a single, relatively narrow leaf 126. The extra leaves are adapted to be stored in the wall recess R, behind the table 12, in the storage position of the table. The outer edge 128 of the fixed table top panel 40 is provided with sockets 130 to receive pins 122 on an extra leaf, and additional extra leaves, when used are suitably connected to the first extra leaf.

The inner ends of the slides 14 are adapted to be hinged on the wall W in a suitable manner, as by means

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of butt hinges 132, which have lower leaves 134 inset in the face of the wall W, below the recess R, with their hinge axes above the bottom 136 of the recess; and upper leaves 138 which are fixed, in a suitable manner to the inner ends of the inner slide sections 16. With this arrangement, in the up-folded storage position of the table, the weight of the table is borne by the upper hinge leaves 138 which rest directly upon the recess bottom 136.

Although there has been shown and described a preferred form of the invention, it is to be understood that the invention is not necessarily confined thereto, and that any change or changes in the structure of and in the relative arrangements of components thereof are contemplated as being within the scope of the invention as defined by the claims appended hereto.

What is claimed is:

1. A fold-down extension table comprising a pair of laterally spaced slides having inner ends and outer ends, means on said inner ends for hinging the slides on a support above a floor, table top panel means overlying and extending between the slides, means fixing the panel means to the slides, a cross member fixed to and extending between the slides at the outer ends thereof, and leg means comprising a slidable member confined on said cross member for adjustment therealong, and a leg hinged to said slidable member to fold upwardly from erect floor-engaging position, said slidable member comprising a closed channel shorter than the distance between the slides and slidably embracing the cross member.

2. A fold-down extension table comprising a pair of laterally spaced slides having inner ends and outer ends, means on said inner ends for hinging the slides on a support above a floor, table top panel means overlying and extending between the slides, means fixing the panel means to the slides, a cross member fixed to and extending between the slides at the outer ends thereof, and leg means comprising a slidable member confined on said cross member for adjustment therealong, and a leg hinged to said slidable member to fold upwardly from erect floor-engaging position, said slides comprising telescoped inner and outer and intermediate sections, said sections being open rectangular channels, the intermediate sections being telescoped onto the inner sections and the outer sections being telescoped onto the intermediate sections, the inner slide sections being inverted and having top walls upon which said table top means is fixed.

3. A fold-down extension table comprising a pair of laterally spaced slides having inner ends and outer ends, means on said inner ends for hinging the slides on a support above a floor, table top panel means overlying and extending between the slides, means fixing the panel means to the slides, a cross member fixed to and extending between the slides at the outer ends thereof, and leg means comprising a slidable member confined on said cross member for adjustment therealong, and a leg hinged to said slidable member to fold upwardly from erect floor engaging position, said slides comprising telescoped inner and outer and intermediate sections, said sections being open rectangular channels, the intermediate sections being telescoped onto the inner sections and the outer sections being telescoped onto the intermediate sections, the inner slide sections being inverted and having top walls upon which table top means is fixed, said slide channel sections having side walls, the side walls of the inner sections having internal grooves and external ribs extending therealong, the side walls of the intermediate sections having internal slideways receiving said ribs and external grooves, the side walls of the outer sections having internal ribs engaged in the external grooves of the intermediate sections.

4. A fold-down extension table comprising a pair of laterally spaced slides having inner ends and outer ends, means on said inner ends for hinging the slides on a

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support above a floor, table top panel means overlying and extending between the slides, means fixing the panel means to the slides, a cross member fixed to and extending between the slides at the outer ends thereof, and leg means comprising a slidable member confined on said cross member for adjustment therealong, and a leg hinged to said slidable member to fold upwardly from erect floor-engaging position, said slides comprising telescoped inner and outer and intermediate sections, said sections being open rectangular channels, the intermediate sections being telescoped onto the inner sections and the outer sections being telescoped onto the intermediate sections, the inner slide sections being inverted and having top walls upon which said table top means is fixed, said slide channel sections having side walls, the side walls of the inner sections having internal grooves and external ribs extending therealong, the side walls of the intermediate sections having internal slideways receiving said ribs and external grooves, the side walls of the outer sections having internal ribs engaged in the external grooves of the intermediate sections, the side walls of the

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intermediate sections having external flanges and the side walls of the outer sections having internal slideways receiving said flanges.

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