Jan. 8, 1963 L. D. EVANS ET AL 3,072,453

FOLDING EXTENSION TABLE DEVICE

Filed Jan. 23, 1961 4 Sheets-Sheet 1

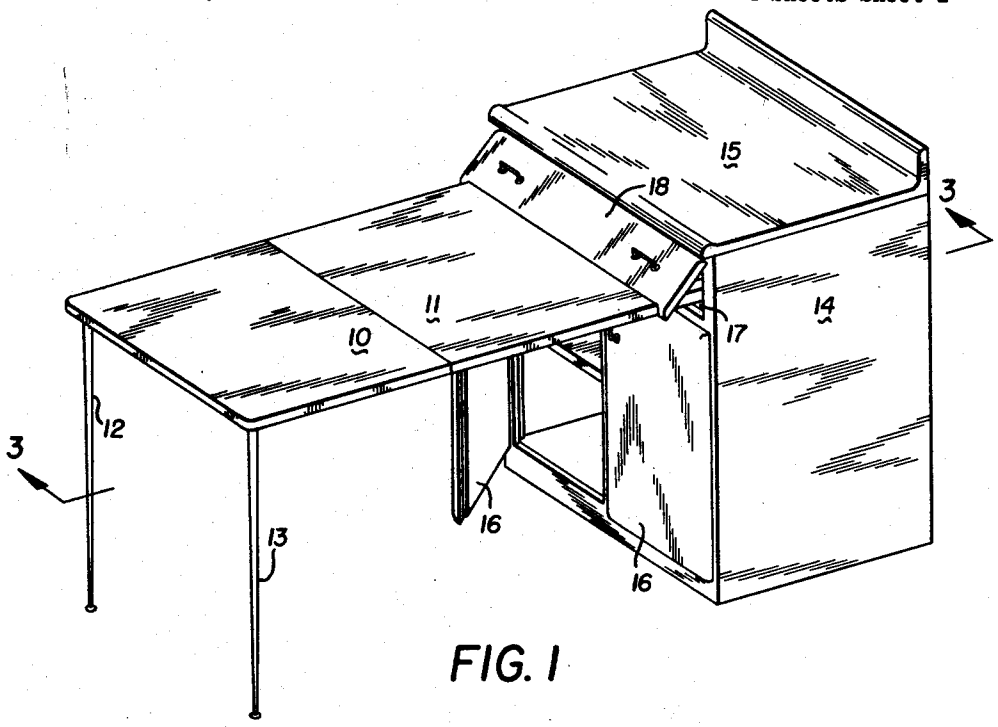


FIG. 1

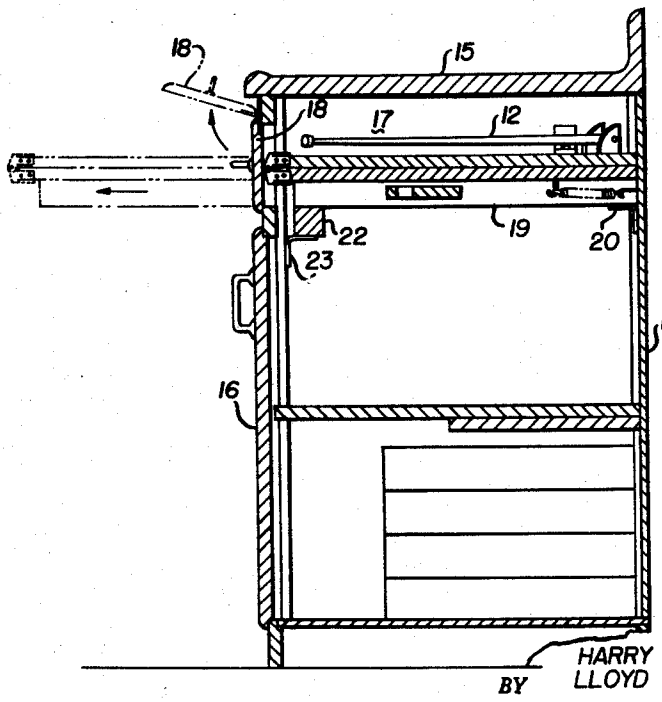


FIG. 2

INVENTORS
HARRY E. HOPES &
LLOYD D. EVANS
BY
W. B. Harpman
ATTORNEY

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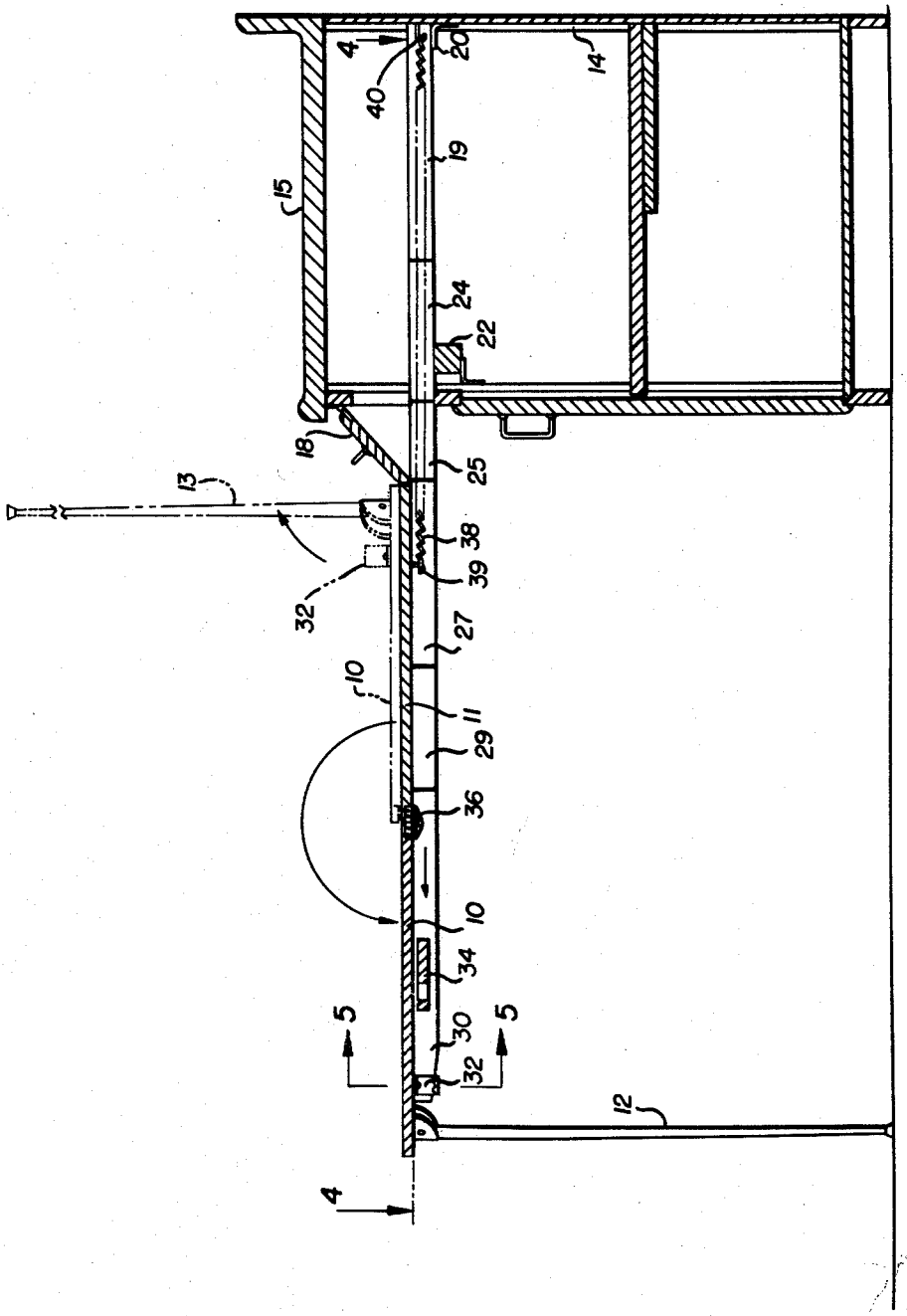


FIG. 3

INVENTORS
HARRY E. HOPES &
LLOYD D. EVANS

BY

W. B. Hayman

ATTORNEY

Jan. 8, 1963 L. D. EVANS ET AL 3,072,453

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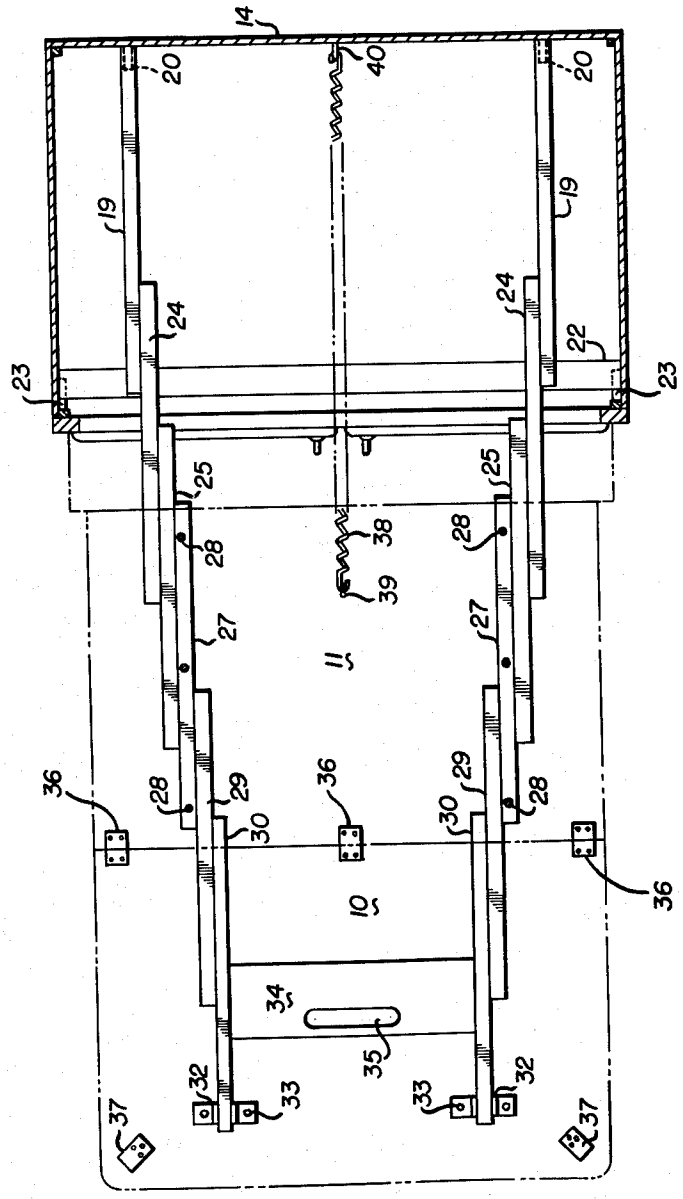


FIG. 4

INVENTORS
HARRY E. HOPES &
LLOYD D. EVANS

BY W. B. Hargman
ATTORNEY

Jan. 8, 1963 L. D. EVANS ET AL 3,072,453

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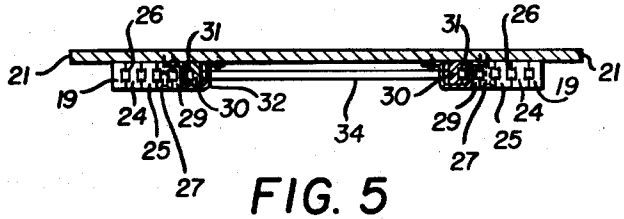


FIG. 5

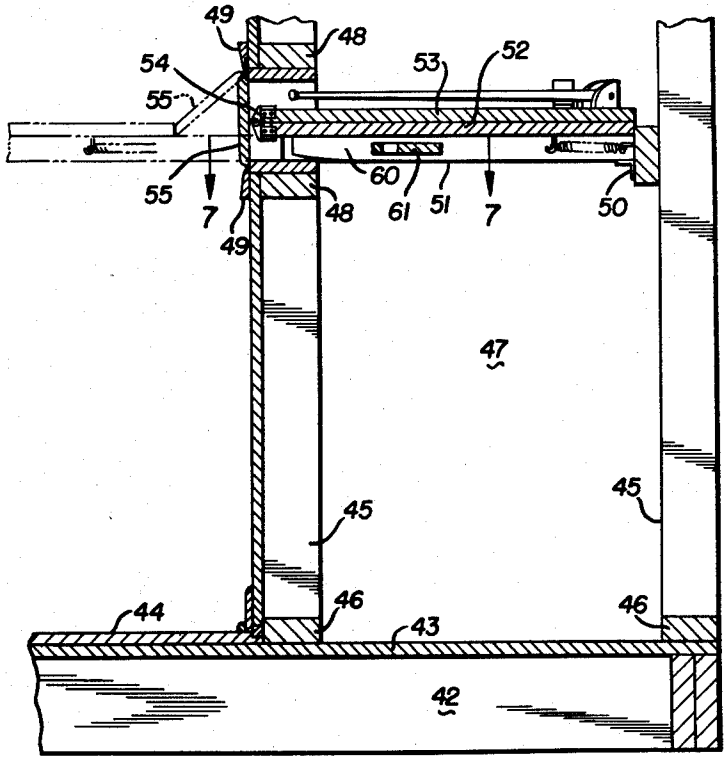


FIG. 6

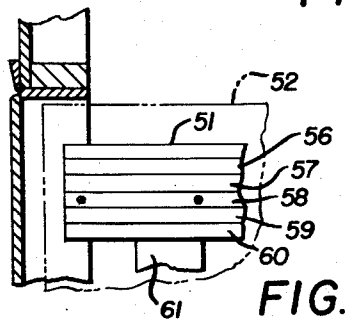


FIG. 7

INVENTORS
HARRY E. HOPES &
LLOYD D. EVANS

BY W. B. Harpman
ATTORNEY

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FOLDING EXTENSION TABLE DEVICE

Lloyd D. Evans, 3657 Monaca Ave., Youngstown 11, Ohio, and Harry E. Hopes, 140 Neff Drive, Canfield, Ohio

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This invention relates to a folding extension table device and more particularly to a folding table construction that may be positioned in a relatively small space, for example, a space comparable with that occupied by a drawer in a cabinet.

The principal object of the invention is the provision of a folding extension table device that may be built into a cabinet or wall so as to occupy only a small space therein and to be extensible therefrom to form a full-sized dining table.

A further object of the invention is the provision of a folding extension table device that includes extension slides for supporting the table structure.

A still further object of the invention is the provision of a simple and compact folding extension table device that may be built into any suitable wall space and will retract completely into said space.

The folding extension table device disclosed herein comprises an improvement in the art particularly with respect to appearance and structure and its ability to be moved into retracted position in a very small space in a cabinet or in a wall where it occupies space comparable with that occupied by a drawer. In folding tables heretofore known in the art, large and bulky cabinets have been employed to hold the folded table and the supporting structure and therefore frequently large portions of the supporting structure have been movable with the table to support the same. Such structures do not look like tables and are cumbersome and wasteful of space. The present invention provides a full-size extension table which folds and slides into the drawer size space in a cabinet or a wall and when extended therefrom provides supporting slide members and regular table legs to provide a practical structurally sound and attractive dining table.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being the intention to cover all changes and modifications of the example of the invention herein chosen for purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention.

The invention is illustrated in the accompanying drawing, wherein:

FIGURE 1 is a perspective view of the folding extension table installed in a base cabinet.

FIGURE 2 is a vertical section through the base cabinet showing the table in retracted position and broken lines showing the table device partly extended.

FIGURE 3 is an enlarged vertical section on line 3—3 of FIGURE 1.

FIGURE 4 is a horizontal section on line 4—4 of FIGURE 3.

FIGURE 5 is a vertical section on line 5—5 of FIGURE 3.

FIGURE 6 is a cross sectional elevation showing the folding extension table unit installed in a wall space.

FIGURE 7 is a horizontal section on line 7—7 of FIGURE 6.

By referring to the drawings and FIGURE 1 in particular, it will be seen that a folding extension table device is illustrated in open position and includes table tops 10 and 11 positioned on a common horizontal plane and

supported at their outermost ends by legs 12 and 13 and at their innermost ends by a base cabinet 14. The base cabinet 14 may be any type of cabinet and the example illustrated is one commonly used in kitchens wherein a molded top 15 is used and a pair of hinged doors 16 and 17 are provided to enclose storage space in the base cabinet 14. The space usually occupied by a drawer in such base cabinets is indicated by the numeral 17 and it will be observed that it comprises an area in the base cabinet 14 immediately beneath the top 15 and that it has a closure 18 hinged thereto to normally close the opening therein. Positioned within the base cabinet 14, as may be best seen by referring to FIGURES 2, 3 and 4 of the drawings, there are a pair of parallel guide members 19, 19 disposed horizontally and supported at their rearmost ends by brackets 20, 20. The guide members 19, 19 have dove-tailed longitudinally extending slots 21, 21 in their opposed inner surfaces as best seen in FIGURE 5 of the drawings. The front ends of the guides 19, 19 are supported on a cross frame member 22 which in turn is held on brackets 23, 23 secured to the base cabinet 14. The upper surface of the member 22 lies on the same horizontal plane as the bottom of the opening in the front of the cabinet which communicates with the space 17 therein and heretofore referred to. By referring now to FIGURES 3, 4 and 5 of the drawings, it will be seen that two pairs of slide members 24, 24 and 25, 25 are provided with longitudinally extending dovetailed grooves in their opposite sides and splines 26, 26 are positioned therein and in the dovetailed grooves 21, 21 of the guides 19, 19 so that the slide members 24, 24 and 25, 25 may be positioned alongside the guides 19, 19 as seen in FIGURE 2 of the drawings or they may be extended relative thereto as seen in FIGURES 3 and 4 of the drawings and that in both positions they will maintain a common horizontal plane as will be understood by those skilled in the art.

The table top 11 has a pair of similar guide members 27, 27 positioned thereon which are secured thereto by fasteners 28, 28. A second pair of slide members 29, 29 and 30, 30 are provided with dovetailed longitudinally extending grooves on their opposite sides and with interconnected splines 31, 31 by means of which they are slidable relative to one another and relative to the guides 27, 27 with which the splines 31, 31 interconnect, while maintaining the same common horizontal plane as the guides 19, 19 and the slide members 24, 24 and 25, 25. The bottom of the table top 10 has a pair of U-shaped brackets 32, 32 secured thereto, by outturned arms apertured for the reception of fasteners 33, 33. The brackets 32, 32 are positioned in longitudinal alignment with one pair of the slide members 30, 30 and which slide members 30, 30 are interconnected by a transverse member 34 having a hand opening 35 therein.

By referring now to FIGURES 2 and 3 of the drawings, it will be seen that when the closure 18 is opened to expose the opening communicating with the space 17 in which the folding extension table is positioned in the base cabinet 14, the table tops 10 and 11 may be pulled horizontally out of the base cabinet 14 where they will be supported by the guides 19, 19 and the slide members 24 and 25 and the guides 27, etc. The table top 10 is hinged to the table top 11 by hinges 36 which permit the table top 10 to be normally positioned in inverted superimposed relation on the table top 11 and be folded outwardly therefrom. When the table tops 10 and 11 have been moved beyond the lower edge of the closure 18 it is allowed to move downwardly to engage the guides 24 and 25 and the innermost edge of the table top 11. The table top 10 is then moved in an arc based on the hinges 36 as shown by the arrow in FIGURE 3. The legs 12 and 13 hinge downwardly and the slide members

29 and 30, 30 are moved outwardly until the foremost ends of the slide members 30, 30 to engage the brackets 32, 32.

It will thus be seen that the slide members 29, 29 and 30, 30 position and support the table top 10 relative to the table top 11 and thereby hold it in firm horizontal position. The legs 12 and 13 which are hinged to the table top 10 by hinge formations 36 and 37 help to support the outer end of the folding extension table device and provide a rigid and attractive structure. The slide members 24 and 25 support the table top 11 relative to the base cabinet 14 and the guides 19, 19 therein. The closure 18 registers in the area between the inner end of the table top 11 and the base cabinet 14 to provide a further means of holding the several parts of the folding extension table device in fixed rigid position.

A coil spring 38 is positioned between a fastener 39 on the bottom of the table top 11 and a fastener 40 on the back wall of the base cabinet 14 so that the coil spring 38 is extended when table sections 10 and 11 are moved outwardly of the base cabinet 14. The normal tendency of the coil spring 38 is to move the table sections 10 and 11 into the base cabinet 14 and this serves to hold them against the closure 18 and thereby contributes to the rigidity and proper positioning of the table structure. It will occur to those skilled in the art that the closure may be formed in any desired shape so that right angular surfaces relative to the table and cabinet may be presented if desired.

It will thus be seen that the folding extension table device has been disclosed as positioned in and partially supporting by a base cabinet 14 such as commonly used in kitchen constructions and the like. It will occur to those skilled in the art that the folding extending table device can be positioned in any wall space and in FIGURES 6 and 7 of the drawings details of such alternate positioning may be seen. In FIGURE 6 of the drawings floor joists 42 are shown with subflooring 43 and finish flooring 44 thereon. Studding 45, 45 positioned in spaced relation on plates 46, 46 defines wall space 47. Spaced horizontally disposed 2 x 4's 48, 48 define an opening which is framed by a suitable frame 49. Brackets 50 support the folding extension table device in the opening and include a pair of spaced guides 51, 51 which correspond with the spaced guides 19, 19 heretofore referred to. Table tops 52 and 53 hinged together by hinge constructions 54 are mounted on slide members exactly as heretofore disclosed in connection with the descriptions of FIGURES 1, 2 and 3, 4 and 5 of the drawings. A closure 55 is provided and when opened permits the folding extension table device to slide out of the wall opening. In FIGURE 7 of the drawings, a horizontal detailed sectional elevation on line 7—7 of FIGURE 6 may be seen. The guides 51 will be seen to be joined to slide members 56 and 57 which in turn are slidably joined to guide members 58 which are secured to the table top 52 and slide members 59 and 60 are slidably joined thereto. The guides 60 have a transverse connecting member 61 all of which corresponds with the structure heretofore disclosed and described in FIGURES 1, 2, 3, 4 and 5 of the drawings and which structure operates in the same manner.

It will thus be seen that a folding extension table device has been disclosed which may be conveniently and easily mounted in a base cabinet or in a wall space if desired and which folding extension table device may then be used in the manner disclosed to form a sturdy, good looking full-sized dining table capable of being repositioned in the base cabinet or wall space in an area thereof comparable with that of a single drawer space

therein, and having thus described our invention, what we claim is:

1. A folding extension table comprising a device adapted to be positioned in a support structure, said device including a first pair of spaced parallel guides adapted to be secured to said support structure in horizontal relation thereto, a second pair of spaced parallel guides and a first group of rigid parallel slide members having slidably interlocking longitudinally extending formations engaging one another and said first and second pair of guides, a second group of rigid parallel slide members having slidably interlocking longitudinally extending formations engaging one another and said second pair of parallel guides in oppositely disposed relation to said first group of parallel slide members, a pair of table top members hinged to one another, one of said table top members secured to said second pair of parallel guides, brackets defining receptacles secured to the other one of said table top members in position for alignment and registry with two of said second group of slides and a pair of legs hinged to said last-mentioned table top member.

2. The folding extension table device set forth in claim 1 and wherein said support structure comprises a base cabinet having an opening in the front wall thereof, said first-mentioned guides being secured within said base cabinet in alignment with said opening.

3. The folding extension table device set forth in claim 1 and wherein each of said pairs of parallel guides and parallel slide members are positioned progressively inwardly of one another and have continuously extending inter-engaging formations longitudinally thereof and are disposed on a common horizontal plane and wherein a transverse member having a handhole therein is positioned between and secured to the innermost pair of said slide members.

4. The folding extension table device as set forth in claim 1 and wherein said table top members are hinged to one another at their outermost edges and one of said table top members is normally positioned in inverted superimposed relation on the other one of said table top members.

5. A folding extension table adapted to be hidden in a portion of a base cabinet and the like and comprising a first pair of spaced parallel horizontally disposed guide members for attachment to said base cabinet and the like, a pair of similarly sized and shaped table tops and a pair of legs and hinges securing said legs to the bottom surface of one of said table tops, a second pair of spaced parallel horizontally disposed guide members secured to the bottom surface of the other one of said table tops, longitudinally extensible slide means engaging said first pair of guide members and said second pair of guide members and secondary longitudinal extensible slide means engaging said second pair of guide members in oppositely disposed relation to said first longitudinally extensible slide means and detachably engaging said table top having said legs hinged thereto, hinges positioned between said pair of table tops whereby said table top having said legs hinged thereto may be moved into inverted superimposed relation to said other table top upon being freed from said secondary longitudinally extensible slide means.

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