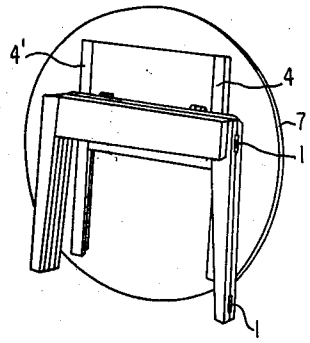
June 8, 1965 P. J. M. OSCOZ SANCHEZ 3,188,158

FOLDING TABLE

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FIG.1



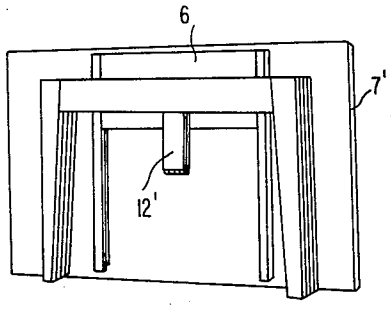
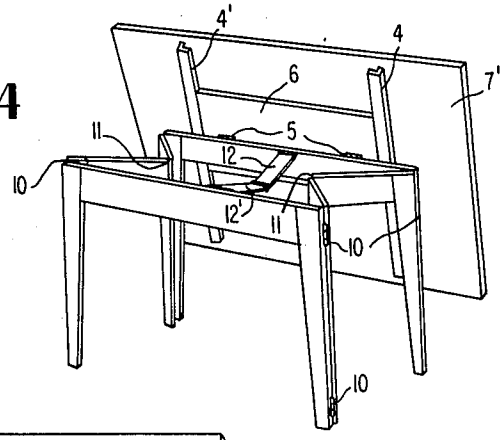


FIG.3

FIG.4



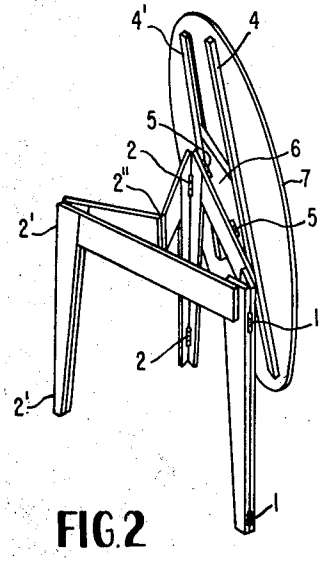


FIG.2

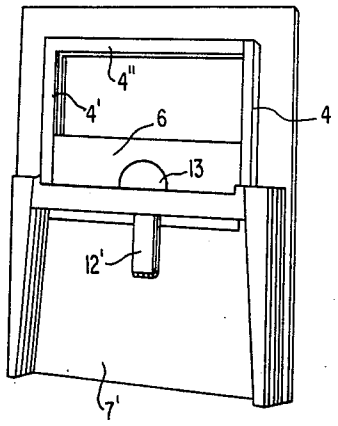


FIG.5

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FIG.6

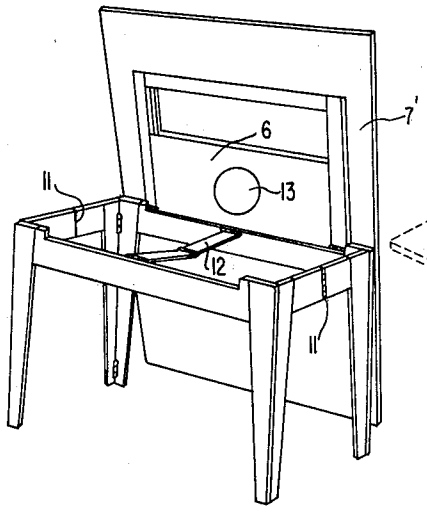


FIG.7

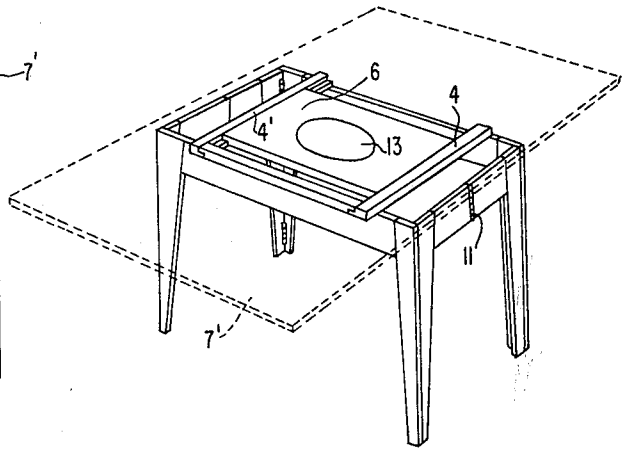
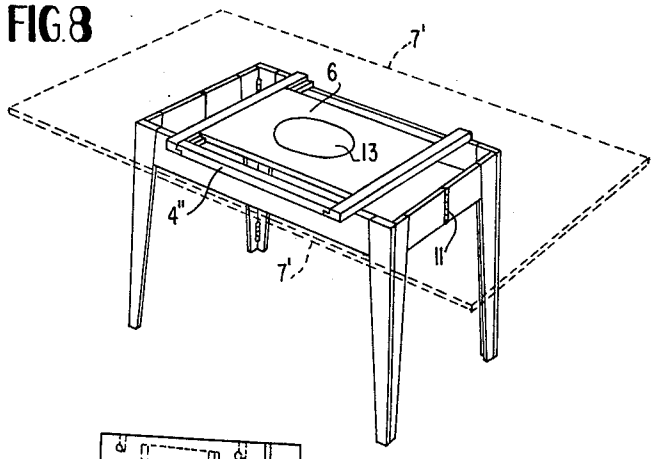


FIG.8



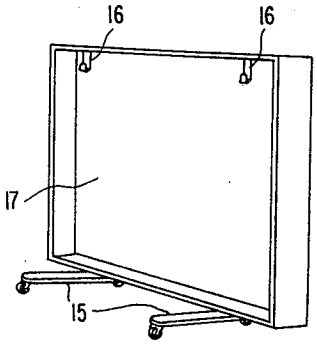


FIG.10

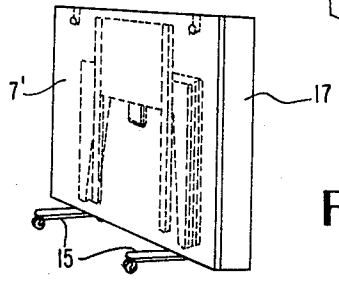


FIG.9

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United States Patent Office 3,188,158 Patented June 8, 1965

3,188,158

FOLDING TABLE

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Filed Mar. 8, 1962, Ser. No. 178,505
1 Claim. (Cl. 312—277)

This invention relates to a piece of furniture convertible for several uses and more particularly to the concept of constructing tables useable separately and fitted to combine with other furniture to form a conjunction and to the formal conjunctions.

Tables according to the invention are more manageable, easier to transport and carry and when not in separate use but combined with the furniture they occupy a minimum space.

A primary object of this invention is to provide foldable tables which not only gain in the folding but also save space when stored as part of another piece of furniture while enhancing the appearance of such furniture.

To enable a clearer understanding of the invention and its objects, a number of embodiments will be described with reference to the attached drawings in which various pieces of furniture are represented more or less diagrammatically, as limited and preferred forms of the invention, susceptible to change of details without altering its essential characteristics.

In the following drawings:

FIGS. 1 and 2 are perspective views of the table according to the invention showing the table folded and partially unfolded.

FIGS. 3 and 4 are similar perspective views of another embodiment of the table.

FIGS. 5 and 6 are similar perspective views of another modified table in which the table top is revolvable over a sliding frame which facilitates the folding.

FIG. 7 is a perspective view showing the table of FIG. 6 completely unfolded.

FIGURE 8 shows the same table of the three previous figures with its top revolved 90° with respect to the position which appears in FIGURE 7.

FIGURE 9 is a perspective view of a table according to the previous figures joined to and forming an exterior face of a furniture piece.

FIGURE 10 is a perspective view of the furniture piece of FIGURE 9 separated for independent use.

Referring now more particularly to the drawings it is apparent that a table top is foreseen according to the invention which may be supported by a great variety of foldable leg structures embodying three, four or more legs.

FIGURES 1 and 2 show table top supports having three legs. The types of folding are performed depending on the diverse structures. Each leg is constituted by two pieces forming a dihedral of a variable opening due to the joining hinge joints between both pieces along the rib. The leg joined by the hinge joints **1** is united at its upper extremes by undivided girders to the other two legs which are in turn joined respectively by hinge joints **2** and **2'**. A third girder that joins these two legs is split in its center and the split halves joined by hinge joints **2''**. FIGURE 2 clearly illustrates how the folding and unfolding of such structure is performed.

The union of girders and legs is hidden in the places where spaces are provided which enable the superposition of the folded parts and this is facilitated if the parts and spaces have substantially the same thickness.

A type of support utilizing four legs is illustrated in FIGURES 3 and 4. Also in this case the legs are essentially dihedrical with joining lines along hinge joints **10**. Two opposite upper girders are undivided and the other

two are joined in its center by hinge joints or similar means **11**. To partially cover the empty space in the interior of the area surrounded by the girders, semi-stretchers **12**, **12'**, which are of equal length and joined together and to the central parts of the girders, are used as guides of the conjunction to prevent movements laterally thereof during extension.

FIGURES 3 and 4 illustrate clearly how the folding and unfolding of the leg structure are performed.

The above supports are described as examples only and demonstrate the possibility of constructing a folding table leg structure which is simple and which in accordance with an important object of the invention enables the incorporation of the table tops, or boards, to provide collapsible tables of extraordinary compactibility with the consequent saving of space, easy transportation, etc.

After this first objective is reached in a way that will be discussed hereinafter, a further goal of the invention is to utilize the boards of folded tables to cover, or close, the furniture in which they are kept and for other applications immediately or mediately derived from the first two objectives.

A table top that is laid over the girders of the support and joined to one of the undivided girders by a line of hinge joints, or similar means, can tilt and fold against the folded support but it will remain in an eccentric position excessively overlapping the upper portions of the legs and not totally covering the folded leg surfaces. Therefore, it is necessary to add a means for sliding the table top, after it is depressed or folded, to adjust the position of the folded top with relation to the folded support structure.

Within the concept of the invention a simple and effective solution is conceived to overcome the difficulty of completely covering the legs. Actually, the table tops are united to the support structures, which include the legs and its girders, by means of frames which are constituted of two parts; one of these parts is joined to the corresponding undivided girder by means of hinge joints or similar means; the other part slides with respect to the first part in a direction perpendicular to the axis of folding.

This solution is illustrated in FIGURES 1 and 2 for a table with a round top and three legs and in the FIGURES 3 and 4 for a table with a rectangular top and four legs.

In both cases, and extensive to other embodiments, the lower face of the table top is provided with two parallel guide strips **4**, **4'**, fixed to the top. These strips present in their front face a profile which permits a rectangular piece or element **6** to be slidingly retained and guided. The sliding may be relative, that is to say, it can be of the conjunction **4**, **4'** in **6**, or of **6** in the conjunction **4**, **4'**. In the cases thus far described, the first possibility is illustrated, inasmuch as piece **6** is joined to one of the undivided girders of the support by hinge joints **5**. With this construction, after tilting in one sense or the other, the table top may be slid to either its work or storage positions.

The reference numeral **7** indicates the circular board, while **7'** indicates the rectangular one. The rectangular form of course is more suitable to the utilization as a cabinet closure.

A circular board **7**, once centered by sliding over support leg structure, cannot yield diverse orientation by revolution with relation to the legs. But with the rectangular boards **7'** or square boards, unlimited possibilities of orientation and folding are possible by revolving the board around a vertical axis.

This is illustrated in FIGURES 5–8 wherein a frame including the sliding element **6** is joined by hinge joints to an undivided girder. The frame includes the pair of guides **4**, **4'** and, to give a greater firmness, a transverse **4''** uniting the free ends of the guides.

The connection between sliding element **6** and top **7'** is effected by a circular element **13** fastened to the top and which permits the relative revolution; in this case the revolution **7'** over **6**.

The structure in FIGURES 3 and 4 or 5 and 6 may be adapted to utilize the top of the folded table as the front wall of a furniture piece in which the table leg structure is contained or stored.

Such furniture pieces may rest on supports **15** having wheels or casters. Hooks **16** in the upper part of furniture piece **14** removably link with the brackets, not shown, disposed on the under face of the board **7'**. The folded table is suspended by such means to close the open side of the furniture piece **17**, or cabinet, which contains the table, as illustrated in FIGURE 9.

Furniture which has casters for easy movement from one place to another, such as required for example, in portable beds, may utilize the board **7'** as a surface other than the front.

The above described embodiments are examples only of some applications of the inventive concept or system.

All the described embodiments are very useful for camping, picnicking, in trailers towed by cars, for table games such as ping-pong, and many other applications.

The shapes of the table tops obviously are legion and may be such as to confirm esthetic or any other types of requirements.

I claim:

A folding table comprising a plurality of vertical legs, a rigid horizontal girder fixed to the upper ends of a pair of said legs lying in one plane, additional horizontal girders at least one of which is foldable forming a closed continuous frame and securing the remaining legs to said

first horizontal girder and pair of legs to form a unitary leg assembly, said additional girders being arranged to permit the remaining legs to be swung to lie in a vertical plane adjacent the plane of said pair of legs, a top panel for seating on said continuous frame of horizontal girders, a pair of parallel guides perpendicular to said rigid girder under said panel, a slide movable in said guides, hinge elements connecting said rigid girder and unitary leg assembly to said pair of guides, and pivot means fastening said slide to said panel to permit rotation of the panel in its own plane, whereby upon folding the table said legs and girders are swingable to lie in adjacent vertical planes and then turnable as a unit about said hinge elements to lie against the underside of the panel and finally are slideable as a unit to center the legs and girders so as to completely underlie the panel without extending beyond its periphery to enable use of the top panel as a cabinet closure, and whereby upon unfolding the table the reverse operations may be followed, said slide being movable to center the extended legs and girders under the top panel.

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FRANK B. SHERRY, *Primary Examiner.*