April 10, 1962 P. J. M. OSCOZ SANCHEZ 3,029,114

FOLDING TABLES

Filed April 19, 1960

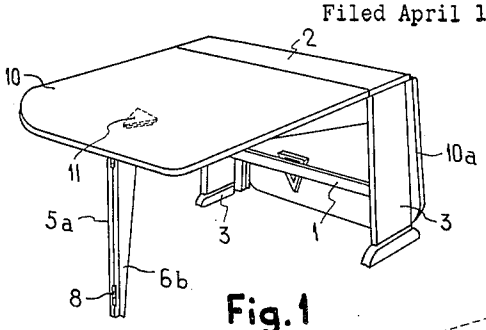


Fig. 1

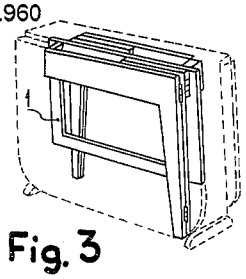


Fig. 3

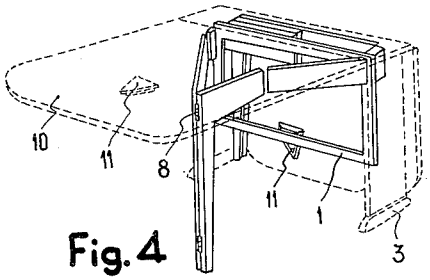


Fig. 4

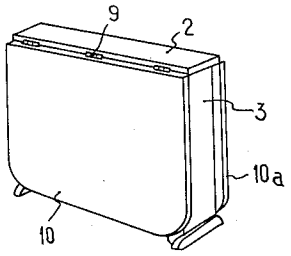


Fig. 2

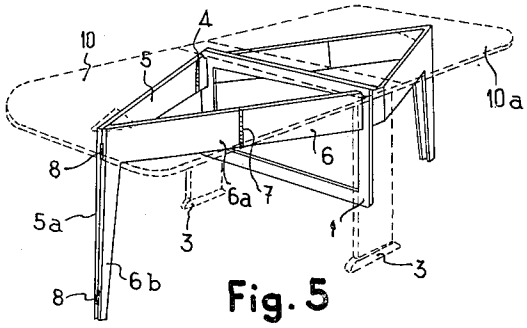


Fig. 5

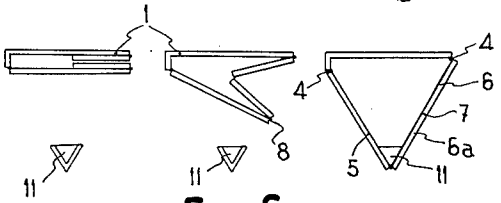


Fig. 6

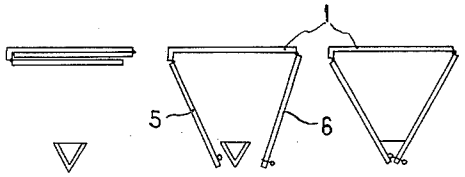


Fig. 7

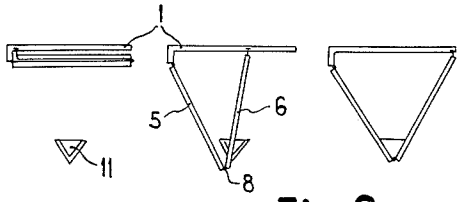


Fig. 8

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FOLDING TABLES

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This invention relates to certain improvements applied to folding tables.

The invention applies to a folding table composed by a central frame against which and on both sides, are folded two sections, the independent unfolding of which determines the mounting and preparation of one half of the table or of the whole of it. In this way, the table can be ready for use, only with one half of the surface or of all its surface, according to requirements.

At present there are a large number of types of folding tables, but these are considerably improved by the present invention which provides that when the table is folded it occupies a minimum of space, whereas, when it is unfolded it will constitute a table of a greater size, capable of being used by a large number of persons. The opening and closing of the table is very simple and is carried out with a minimum of effort on the part of the user, being nearly automatic due to the inclusion of hinges having springs.

For better understanding the subject invention, and only as an example, there is attached a drawing, in which:

FIGURE 1 represents a perspective view of the developed table with only one half of it opened, or unfolded.

FIGURE 2 is a perspective view of the folded table.

FIGURE 3 is a view similar to FIG. 1 of the unfolding elements shown in broken lines falling on both sides of the central frame when folded.

FIGURE 4 is a view similar to FIG. 1 but with the table leaves shown in broken line and in a semifolded position on one side, and folded on the other.

FIGURE 5 is a perspective view of all the unfolded elements of the table in an unfolded position, with the table leaves and legs shown in broken line.

FIGURE 6 represents, in a schematic plan view, the elements included in FIG. 3, in their three positions, namely: closed, semiunfolded and opened.

FIGURES 7 and 8 are similar to FIG. 6 and represent each an alternate construction for the elements included in FIG. 3, in their three positions, namely: closed, semiunfolded, and opened.

With reference to the aforementioned drawing, the improved device includes a central frame which does not vary in any position, and which is composed of a rectangular frame **1** that in its larger upper side has a fixed narrow board **2** that forms part of the table's surface when the table is in an opened position. On its smaller lateral sides, frame **1** has attached two legs **3**, with a large base, that serve as a support for the unit when in a closed position and which help to support it when in an opened or semiopened position.

On the upper part of the two smaller lateral sides of the frame **1** there are articulated by means of the hinges **4**, the following: on one side, a beam or transom **5**, and on the other side another beam composed of two parts **6**, **6***a*, which are of equal length and which are articulated to each other by means of a hinge or hinges **7**. At the same time, the extremity of beam **5** and that of the part **6***a* of the opposing factor, are joined together by means of an articulation of one or more hinges **8**. These extremities have at their ends ample downward extensions **5***a*, **6***b*, which are articulated to each other by means of the foregoing hinges **8**, and when the unit adopts the

opened position, the movable system we have described, forms a triangular figure the base of which is constituted by frame **1** and the vertex of which is formed by the articulated joint of beam **5** and part **6***a*. The same layout of articulated beams exists on each side of the central frame **1**, for which reason the system of unfolding supports of the unit adopts while in the completely opened position, the form of a regular rhomboid whose smaller axis is formed by frame **1**.

On the lateral edges of the larger sides of board **2**, that is, on both sides of it, and by means of two or more hinges **9**, are articulated both folding wings, or leaves, **10**, **10***a*, of the table, each of which has on its under surface a wood triangle **11** that forms a rib or protrusion which is insertable to fix the respective positions in the vertex formed by the meeting of beam **5** with the semibeam **6***a*. The triangle **11**, when inserted in said vertex, unifies the movable parts and avoids the necessary spaces resulting from the different articulations, thus constituting or making of the unit a solid block which is perfectly supported by the legs **3** of the central frame and the descending extensions **5***a* and **6***b* of the respective beams.

Referring to the three details of FIG. 6, it will be noted that the cycle both opening and closing of beams **5** and **6** is permitted by the folding of beam **6** by means of the articulation of hinges **7**. The detail on the left side corresponds to the closed position; the central detail corresponds to the semiopened position, while the detail on the right side corresponds to the completely opened position.

FIGURE 7 represents an alternative for the articulated system that supports one of the folding wings of the table. In this alternative, beam **5** is exactly the same, but there is the variation that the beam **6** is rigid like beam **5** joining each other (forming the mentioned triangular figure) in its vertex by means of screws or any other adequate means.

The alternative construction represented in FIG. 8 utilizes the single piece rigid beams **5** and **6** and hinges **8** in the vertex. Beam **6** is provided at one end with means capable of traveling on an adequate guide existing on the larger upper side of frame **1**.

In both alternative constructions, the triangular block for final fixing located on the bottom surface of board **10**, **10***a* is used because in the opened position both constructions are identical in position of parts to the construction illustrated in FIGS. 1–5. The only difference is in beam **6** which is a single piece and that it is articulated at one end or the other for which reason a difference in the position of parts can only be noticed in the intermediate positions, that is, in those positions of the table such as the semiclosed.

It is needless to indicate that the form of the folding boards (which determines the final form of the table in the opened position) can be different. The size, form and material can also vary, particularly with reference to each one of the elements composing the unit. One or all of the hinges may be equipped with an additional spring in order to obtain a semiautomatic operation in the opening or closing movement.

Although certain specific embodiments of the invention have been shown and described, it is obvious that many modifications thereof are possible. The invention, therefore, is not to be restricted except insofar as is necessitated by the prior art and by the spirit of the appended claims.

I claim:

1. In a folding table having a fixed top portion carried by a support and a leaf hinged to said top portion, the improvements comprising a movable, vertical leg formed in two parts hinged together along a vertical axis, each

of said leg parts having a substantially horizontal extension fixed thereto and articulately connected to opposite sides of said support to form a triangle with the support as a base and the movable leg at the apex opposite the base in the unfolded condition of said table, the upper surfaces of said extensions lying in the same plane and being adapted to support the underside of said leaf in the unfolded condition of the table, and means for folding said extensions into parallel positions whereby to permit dropping of said leaf to fold said table.

2. An improved folding table as described in claim 1 wherein said means for folding said extensions comprises a horizontal guide disposed in said support, and means on one of said extensions interfitted with said guide to secure the extension to the guide while permitting movement to fold said extensions and drop the table leaf.

3. In a folding table having a fixed top portion carried by a support and a leaf hinged to said top portion, the improvements comprising a movable, vertically extending leg with two substantially horizontal extensions articulately connected therewith, said extensions being articulately secured to opposite sides of said support to form a triangle with the support as a base and the movable leg at the apex opposite the base in the open, unfolded condition of said table, and means for folding said extensions into parallel positions whereby to permit dropping of said leaf to close or fold said table, said means for folding said extensions comprising one of said extensions formed in a plurality of parts hingedly connected to each other.

4. In a folding table having a fixed top portion carried by a support and a leaf hinged to said top portion, the improvements comprising a movable, vertically extending leg with two substantially horizontal extensions articulately connected therewith, said extensions being articulately secured to opposite sides of said support to form a triangle with the support as a base and the movable leg at the apex opposite the base in the open, unfolded condition of said table, and means for folding said extensions into parallel positions whereby to permit dropping of said leaf to close or fold said table, said leaf being provided with a triangular abutment secured to the underside and arranged to fall within the said apex of the triangle formed by said extensions to lock said leg and extensions in the unfolded condition of said table.

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