March 10, 1964 P. J. M. OSCOZ SANCHEZ 3,124,085

FOLDING TABLE

Filed March 8, 1962 2 Sheets-Sheet 1

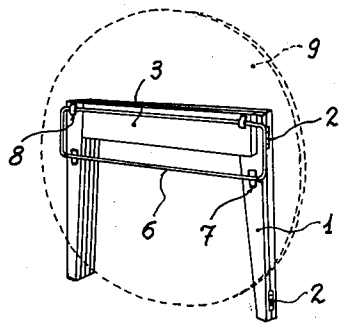


Fig. 1

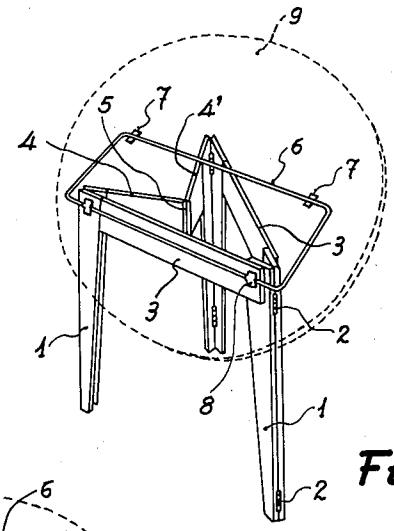


Fig. 2

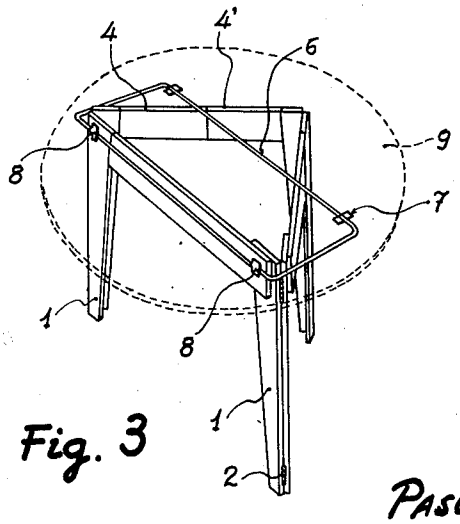


Fig. 3

INVENTOR
PASCUAL J. M. OSCOZ SANCHEZ

BY Morris & Stanley

ATTORNEY

March 10, 1964 P. J. M. OSCOZ SANCHEZ 3,124,085

FOLDING TABLE

Filed March 8, 1962 2 Sheets-Sheet 2

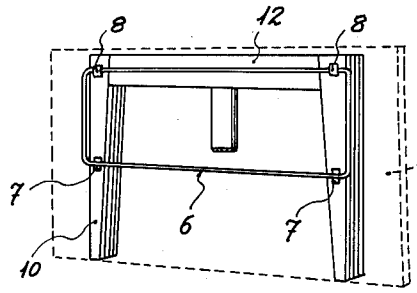


Fig. 4

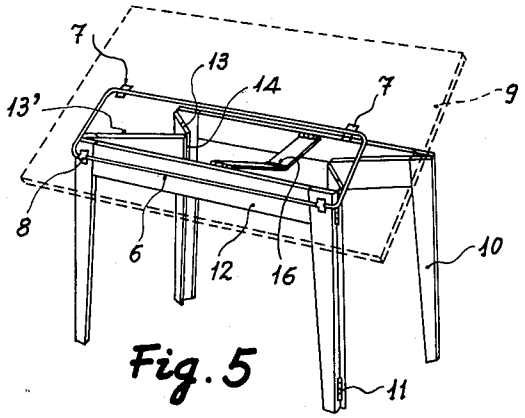


Fig. 5

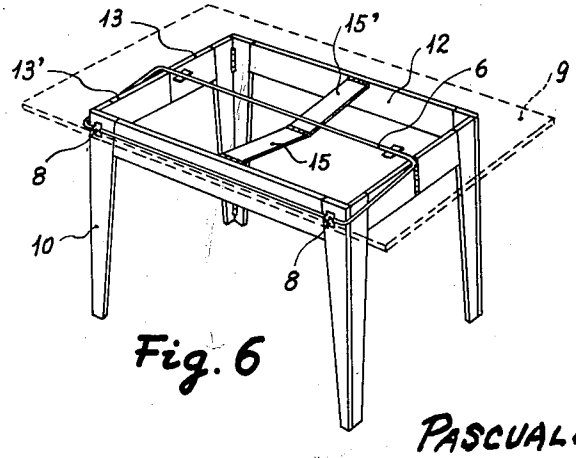


Fig. 6

INVENTOR

PASCUAL J.M. OSCOZ SANCHEZ

BY Muir & Smiley

ATTORNEY

United States Patent Office 3,124,085 Patented Mar. 10, 1964

3,124,085

FOLDING TABLE

Pascual Jose Maria Oscoz Sanchez, Ibanez de Bilbao 6, Bilbao, Spain

Filed Mar. 8, 1962, Ser. No. 178,506
4 Claims. (Cl. 108—115)

The present invention refers to a folding table and particularly to a table in which the makeup of the support consisting in its entirety of the legs and the main girders are folded to the most compact superposition of its elements, the table top being folded over such folded legs and girders.

The immediate purpose of the design and construction of the folding tables is to enable it to occupy a minimum space when not in use or when transporting it from one place to another.

Actually, the folding table wlil certainly be more compact than the extended furniture when in use; such will therefore be more flat; but if its contour forms a line of inadequate configuration or comprises an excessively large area, the advantage obtained in folding will have been limited, since what has been gained in compactness has been increased in surface and many times spaces of certain dimensions cannot be obtained if not wasting space, contrary to the collapsible furniture.

With regard to what has been indicated, a great variety of collapsible furniture have been created. The best of them, with regard to the resulting in its use has resulted in complicated structures which are therefore costly and heavy. The most simple solutions are the more or less weak furniture, but never of a quality that can be considered insuperable.

The object of this invention is to provide a folding table in which a frame, formed by the legs and the corresponding main bracers, is by itself collapsible, and the table top is foldable over such folded frame and flat against it in such a way that the surface remains practically overlapping, thus reaching the maximum possible compactibility.

The essential characteristic of the invention is that such result is obtained by solid, effective and extremely simple means, which therefore does not diminish the quality of the furniture in which they are employed.

The nature of the invention will be easily understood through the description with the referenced attached drawings, which illustrates in a simple way and a not limited diagram as an example, the invention applied to a circular table and three legs and a rectangular table with four legs.

In the cited drawings:

FIGS. 1, 2 and 3 show a table having a circular top and three legs in the respective folded, semi-extended and fully extended positions.

FIGS. 4, 5 and 6 show a table with four legs and rectangular top and in positions corresponding to those of FIGS. 1, 2 and 3.

With reference to FIGS. 1, 2 and 3, each of the three legs **1** is constituted by a pair of leg sections connected along their outer edges by hinge joints **2**. Each of the leg sections is united at its upper end with the corresponding section of another leg by means of a main bracer. Of the three main bracers, two are rigid bracers **3** and a third one is formed by two halves **4** and **4'** joined by means of a hinge joint **5**.

The folding of a conjunction of legs performed in this way is effected by closing the leg sections corresponding to the legs **1**, with which the rigid main bracers **3** are swung toward each other, the third bracer pair **4**, **4'** is folded between the pair **3**.

The tabel top **9** is swung to vertical position as will be indicated hereinafter.

The frame including four legs illustrated in FIGS. 4, 5 and 6 is also collapsed by folding of the leg sections which constitute such legs **10** around the hinge joints **11**. Two equal rigid main bracers **12** formed opposite sides of a rectangle. Each of the other two sides which form the second pair in the same rectangle is constituted by two halves **13**, **13'**, joined by means of the hinge joint or similar means **14**.

The elements **12**, **13**, **13'** join the leg sections at their upper ends.

In order to extend to the frame a greater resistance with regard to deformation in diagonal directions, a center brace is disposed between the rigid bracers **12** and is constituted by two halves **15**, **15'**, joined by means of hinge joints **16** or similar means.

In the modifications shown in FIGS. 1 through 6 and in others possible in accordance with the invention, the top **9** is joined to the supporting frame in the following manner:

A frame **6**, preferably metallic and rectangular in shape, is fitted at one of its sides to the underside of the main area of the top **9**. The fitting is effected by means of brackets **7** which permit pivotal movement on an axis which coincides with said one side of frame **6**.

The opposite parallel side of the frame **6** is joined in a similar way, by means of brackets **8** adjacent to the upper dege of one of the rigid main bracers, **3** or **12**, and parallel to such edge.

Assuming that the table is extended and ready for use it can be unfolded in accordance with the following procedures:

Top **9** by not being directly joined to the supporting frame but by means of frame **6**, remains in a certain way independent of such conjunction. The folding of the top can then be performed without any difficulty in accordance with its proper form.

Inasmuch as the top is joined at the edge of one of the rigid main bracers by means of the frame **6**, a movement of the top **9** is possible and a little more complex than a simple pull. Actually, the frame **6** works as an intermedial link by permitting the transfer of the top **9** to a longitude equal to the width of the frame **6** to one and the other side of the main bracer over which the tilting is produced.

Therefore, once the legs are folded, frame **6** is tilted around the line determined by the brackets **8** until the frame **6** passes from an approximately horizontal position to a vertical position, thus revolving approximately 270°. As a result of this movement of the frame **6**, the top **9** joined by the brackets **7** will have elevated up to an altitude corresponding to a vertical position of frame **6** to later descend to the second vertical position of **6**.

With regard to top **9**, frame **6** will have revolved 180° and the top will have revolved approximately 90°, yet displacing in such a manner that the free extremes of the legs will not overlap or overlap only slightly with relation to the contour of the top.

It is readily evident that the structure according to the present invention is extremely simple while providing rigidity and enabling easy movement between collapsed and extended positions.

I claim:

1. A folding table comprising a plurality of legs, a rigid bracer securing the upper ends of a pair of said legs, foldable bracers securing the remaining legs to said pair of legs and arranged to permit the remaining legs to be swung to lie contiguously in a plane adjacent the plane of said pair of legs, a top panel, and a joint connecting the top panel and legs including an open frame having two opposite parallel rodlike arms connected to each other at their ends by rodlike members, one of said frame arms being rotatably secured to the lower surface

of said top panel, the other of said frame arms being rotatably secured to and parallel with said rigid brace connecting the upper ends of said pair of table legs, said frame arms being of a length greater than the combined length of the rigid brace and connected pair of table legs, whereby said top panel may be swung from a vertical position parallel to said pair of legs to a horizontal position resting on the plurality of unfolded legs with said rigid brace and the upper ends of the connected pair of legs partially enclosed within the open frame.

2. A folding table according to claim 1 wherein said top panel is movable to fold the table in a combination translational and rotational movement about an axis coinciding with said other frame arm, the rotational movement of said other frame arm with respect to said one frame arm being a maximum of 180°, whereby to effectively reverse the angular relation between said frame arms and the undersurface of the top panel during folding and unfolding movements.

3. A folding table according to claim 1 wherein during unfolding movement of said top panel from a position adjacent said pair of legs to a position overlying the tops of all the legs said one frame arm turns through an angle of approximately 270° with respect to the other frame

arm and moves to a position overlying and supported by the unfolded table legs to support the top panel on the legs in a substantially horizontal position ready for use.

4. A folding table according to claim 1 wherein said parallel frame arms are rotatably secured to the top panel and rigid brace each by a pair of spaced couplings providing cylindrical bearing surfaces for rotation of said frame arms.

References Cited in the file of this patent

UNITED STATES PATENTS

490,320	Smyth	Jan. 24, 1893
715,055	Greenlaw et al.	Dec. 2, 1902
782,838	Foque	Feb. 21, 1905
900,552	Kade	Oct. 6, 1908
1,185,563	Wells	May 30, 1916
1,528,156	Lewis	Mar. 3, 1925
1,588,759	Lewis	June 15, 1926
1,854,248	Cairney	Apr. 19, 1932
2,890,089	Sanchez	June 9, 1959
3,013,551	Savino	Dec. 19, 1961

FOREIGN PATENTS

201,424	Great Britain	Aug. 2, 1823