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R. G. GELLER

2,977,169

TABLE WITH HIGH AND LOW FOLDING LEGS

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Fig. 1

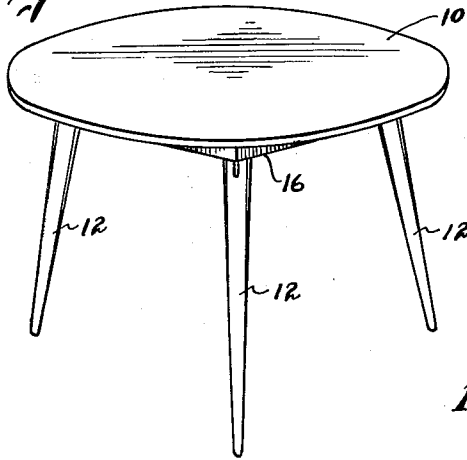


Fig. 2

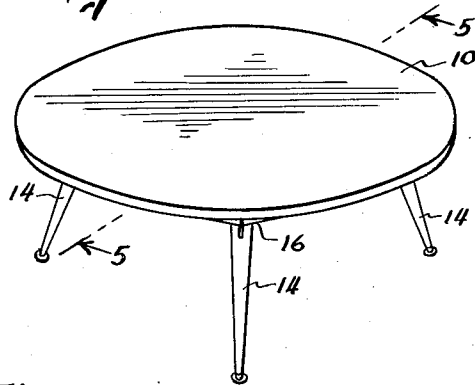


Fig. 3

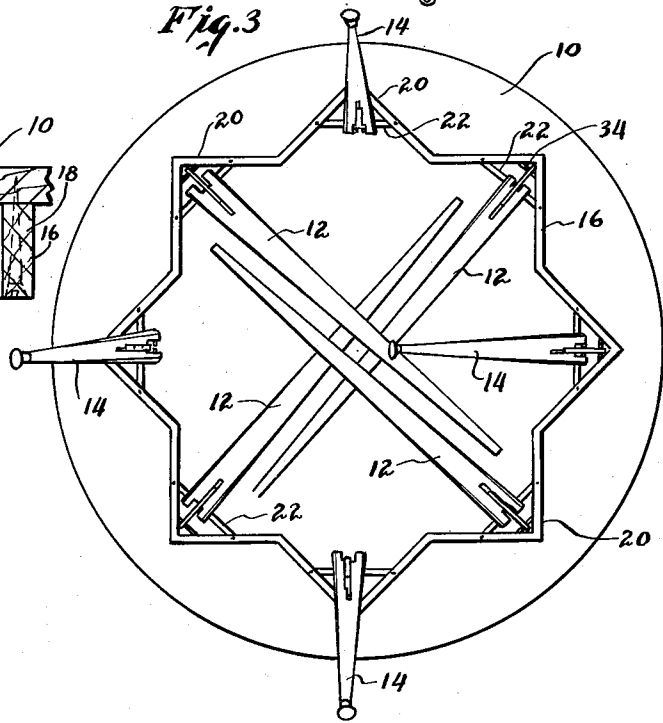


Fig. 5

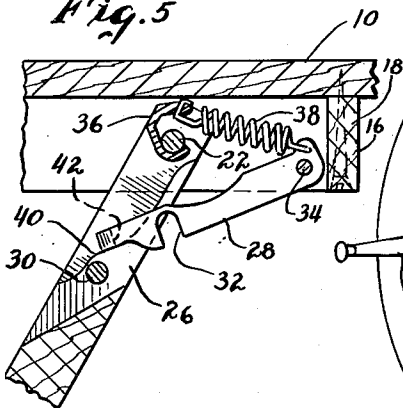
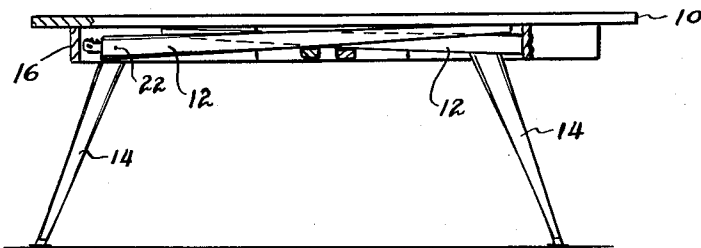


Fig. 4



INVENTOR.

Rose G. Geller

By Emory, Whittemore
Sandoe & Day.
ATTORNEYS

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TABLE WITH HIGH AND LOW FOLDING LEGS

Roscoe G. Geller, Owego, N.Y., assignor to Stakmore Co., Inc., Owego, N.Y., a corporation of New York

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This invention relates to folding tables and more especially to a duplex table having two different sets of legs, one of which locates the table top at a level suitable for use as a dining table, and the other of which locates the table top at a lower level, suitable for use as a cocktail table.

It is an object of the invention to provide an improved folding table, of the character indicated, with provision for folding one set of legs while the other set is in use, or for folding both sets of legs simultaneously for shipment or storage.

It is another object of the invention to provide such a table with an apron extending downwardly from the table top and with the folding legs located within the apron so that the folded set of legs is not visible when the table is supported by the other set of legs.

The invention includes a construction of the apron for using conventional mechanism that holds the legs in either folded or extended positions, and the folding means includes springs that hold the legs folded so that there is no danger of an unused leg dropping down from its folded position when the table is in use and subject to some vibration or shock.

Other objects, features and advantages of the invention will appear or be pointed out as the description proceeds.

In the drawing, forming a part hereof, in which like reference characters indicate corresponding parts in all the views;

Figure 1 is a perspective view showing the table of this invention with the long legs in extended positions and supporting the table from a floor;

Figure 2 is a view similar to Figure 1, but with the short legs in extended positions;

Figure 3 is a bottom view illustrating the way in which the legs are connected with the apron and the manner in which the different legs fold with relation to each other;

Figure 4 is a diagrammatic, vertical section further illustrating the positions of certain of the legs when folded; and

Figure 5 is a detail view of the apparatus for holding the legs in extended or folded positions.

The table includes a top 10, which is shown in the drawing as a round top, and long legs 12. The table also has shorter legs 14 which can be used when the longer legs 12 are folded, and the table is shown in Figure 2 resting on its short legs 14.

An apron 16 (Figure 3) extends downwardly from the table top 10 and is rigidly secured to the table top by screws 18 or other fastening means. In the preferred construction, the apron 16 has the shape of two superimposed squares located with their diagonals at right angles to one another. This gives the apron 16 an outline with walls meeting one another at right angle corners 20, there being such a corner at every 45° of angular spacing around the perimeter of the apron 16.

There is a pivot consisting of a shaft 22 extending

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across each of the right angle corners 20, each of the shafts 22 having its opposite ends secured to the angularly-related walls of the apron 16.

Each of the shafts 22 is slightly longer than the width of the leg through which it extends and the legs are not centrally located on these shafts 22 with the result that the legs on opposite sides of the table lie alongside one another instead of striking against one another when folded, as would be the case if each leg were centrally located on its pivot shaft 22. This relation of the long legs 12 is best shown in Figure 3.

The shorter legs 14 are also offset from the centers of their respective pivot shafts 22, in the construction shown in Figure 3. This standardizes the construction of the pivots and makes possible the use of shafts 22 which are in the same relation in the case of all legs. However, it is not otherwise necessary for the shorter legs 14 in the construction illustrated because the shorter legs 14 do not extend half way across the space enclosed within the apron 16 and each of the shorter legs terminates, therefore, before reaching any of the other shorter legs when in folded condition.

Although all of the pivot shafts 22 are preferably located at the same spacing from the table top 10, the pivot axes of the shafts 22 are far enough from the table top 10 to permit the legs 12 to have some slope toward the table top when in folded condition. This permits the diagonally located legs to overlap one another, as shown in Figure 4. The legs in the plus 135° and minus 45° positions are shown further from the bottom of the table than the other long legs in Figure 3, but it will be understood that either pair of oppositely-located long legs can be folded ahead of the others in accordance with the relation illustrated in Figure 4; and it is one feature of the invention that the apron 16 extends far enough below the table top to shield the folded legs from view when the table is seen from one side.

The latching apparatus for one of the legs 12 is shown in Figure 5. All of the latching mechanism for the different legs is preferably similar. Although this latching mechanism is used in the preferred construction of the invention, it is merely representative of latching mechanism insofar as the broader aspects of the invention are concerned.

There is a slot 26 at the upper end of the leg 12. A latch 28 extends into the slot 26. A pin 30 extends across the lower portion of the slot and is in position to engage a notch 32 in the latch 28, when the leg 12 is in its extended position. In the illustrated construction the leg 12 slopes outwardly when extended, but it may be vertical and the particular angle of the leg, when extended with respect to the table top, is a matter of choice and depends upon the location of the notch lengthwise of the latch 28.

The latch 28 swings about a fulcrum pin 34 which has its opposite ends anchored in the walls of the apron 16 in a manner similar to the pivot shafts 22.

In the preferred construction, the shaft 22 is rigidly secured to the leg 12 so that it moves as a unit with the leg, and the shaft 22 turns in bearings in the walls of the apron 16. A clip 36 is attached to the pivot shaft 22. A tension spring 38 has one end connected to the clip 36, and has its other end connected to a tail of the latch 28.

One of the walls defining the slot 26 is recessed and cut out so as to provide a cam surface 40 extending over the major portion of the length of the slot. The free end of the latch 28 is bent to provide a slide lug 42 which is adapted to ride on the cam surface 40. The spring 38 urges this slide lug 42 against the cam surface 40 to guide the latch 28 and prevent it from being completely withdrawn from the slot 26.

The tension of the spring 38, when the notch 32 is disengaged from the pin 30, urges the leg 12 to swing clockwise about the pivot shaft 22 and thus gives the leg 12 a bias toward folded position. This spring, therefore, holds the leg in folded position when the leg is not in use. Friction of the parts also serves to hold the leg in folded position.

The latching mechanism described herein is similar to that disclosed in the Wilkinson Patent 2,432,266, issued December 9, 1947.

The preferred embodiment of the invention has been illustrated and described, but changes and modifications can be made, and some features can be used in different combinations, without departing from the invention as defined in the claims.

What is claimed is:

1. A folding table comprising a top, aprons extending downward from the top, there being sixteen aprons with successive aprons around the table adjacent to one another and combining to form a periphery with the outline of two superimposed squares, having their diagonals substantially normal to one another whereby the aprons form eight inside corners spaced at forty-five degrees to one another around a center, a pivot inward from the vertex of each corner, legs connected to the table top by said pivots, latch means for holding the legs in extended positions, means for holding said legs in folded positions, said legs including two sets, one of which sets is long to locate the table top at a height for use as a dining table and the other of which sets is shorter to locate the table top at a height for use as a cocktail table, the legs of the different sets being located at alternating corners around said periphery.

2. The folding table described in claim 1 and in which

the pivots for the legs extend across the right angle corners formed by adjacent aprons and the opposite ends of each pivot extends into the aprons of its corner.

3. The folding table described in claim 1, and in which the latch means hold the legs in position where they slope outwardly away from the vertical as they extend downwardly, each of the pivots being in position for its leg to swing in a plane that substantially bisects the angle between the aprons that form the corner at which that leg is located.

4. The folding table described in claim 1 and in which the means for holding the legs in folded positions include a spring for each leg in position to urge the leg to move about its pivot into folded position.

5. The folding table described in claim 4 and in which the means for holding each leg in its extended position includes a latch, and said spring urges the latch into position to hold the leg extended.

6. The folding table described in claim 1 and in which the long legs extend most of the way across the space enclosed by the apron, and each of the short legs extends less than half way across the space.

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