United States Patent

Barabas

[15] **3,688,705**

[45] **Sept. 5, 1972**

[54] **CONVERTIBLE TABLE**

[72] Inventor: **Andrew A. Barabas,** Danbury, Conn.

[73] Assignee: **Castro Convertible Corporation,** Long Island, N.Y.

[22] Filed: **Nov. 10, 1970**

[21] Appl. No.: **88,316**

[52] **U.S. Cl.** **108/17,** 108/63, 108/145

[51] **Int. Cl.** **A47b 85/00**

[58] **Field of Search**.....108/17, 63, 79, 145

[56] **References Cited**

UNITED STATES PATENTS

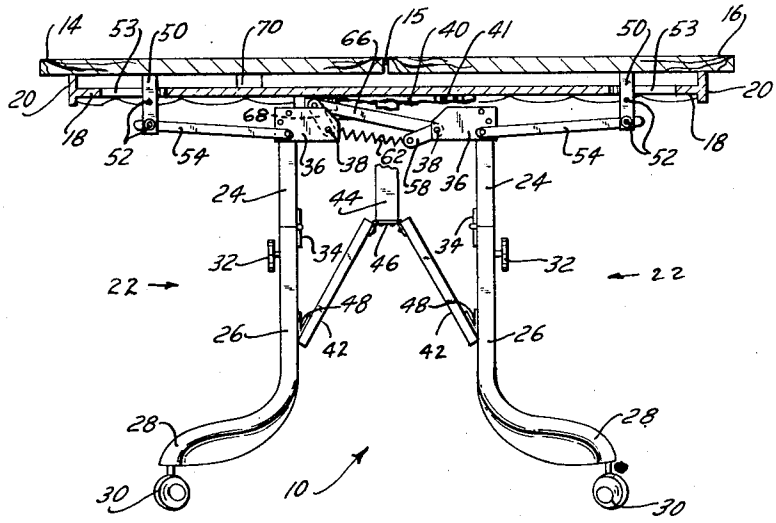
2,846,282	8/1958	Barker, Jr.	108/63
2,799,544	7/1957	Hoppe	108/145
2,544,229	3/1951	Hoppe	108/145
2,544,228	3/1951	Hoppe	108/79
2,678,858	5/1954	Davis	108/145
2,110,466	3/1938	Louis	108/17 X
2,829,939	4/1958	Hoppe	108/17 X

Primary Examiner—Bobby R. Gay
Assistant Examiner—Peter A. Aschenbrenner
Attorney—Curtis, Morris and Safford

[57] **ABSTRACT**

The table has a top which can be enlarged, and a leg structure by means of which the table can be raised and lowered, and the legs can be spread apart or brought closer together. The leg structure includes a pair of pedestals which can be folded in order to spread the pedestals apart, shorten the leg structure, and lower the table top. The table has two halves which can be folded onto one another and fitted into a tray. Thus, a low coffee table with a relatively small top is formed. When the pedestals are unfolded, a plurality of projections pushes the folded table top out of the tray where it can be unfolded and rotated and locked in position. In the latter condition, the table has a larger top with ample height to enable people to fit their chairs under the table edges and sit at the table for dining. The legs are closer together than when the table was in the coffee table form, so that the diners have ample leg-room while sitting at the table.

1 Claim, 4 Drawing Figures



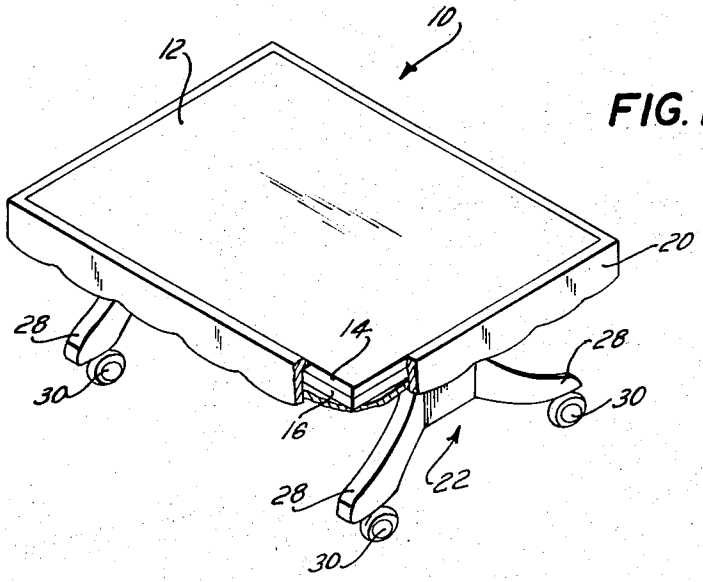


FIG. 1

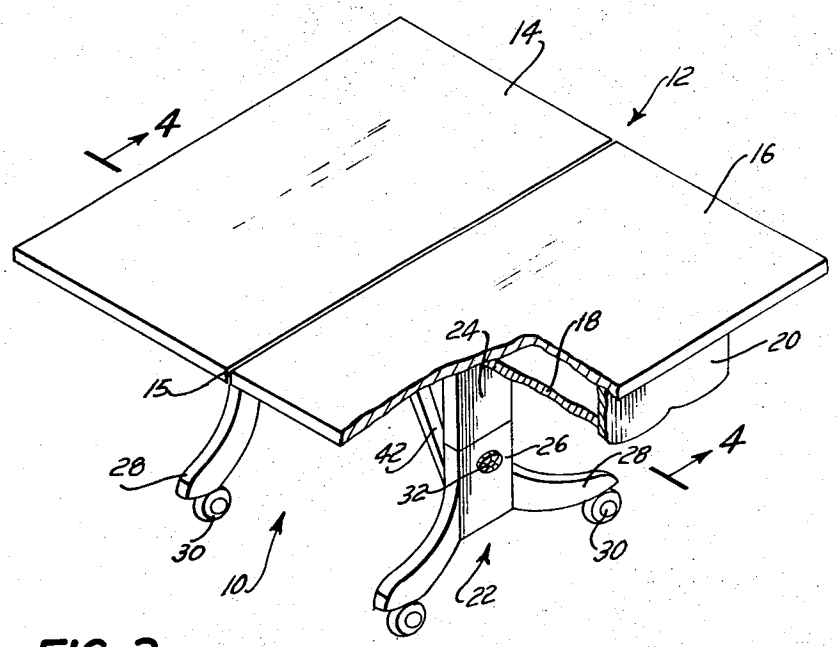


FIG. 2

INVENTOR
ANDREW A. BARABAS
BY
ATTORNEY

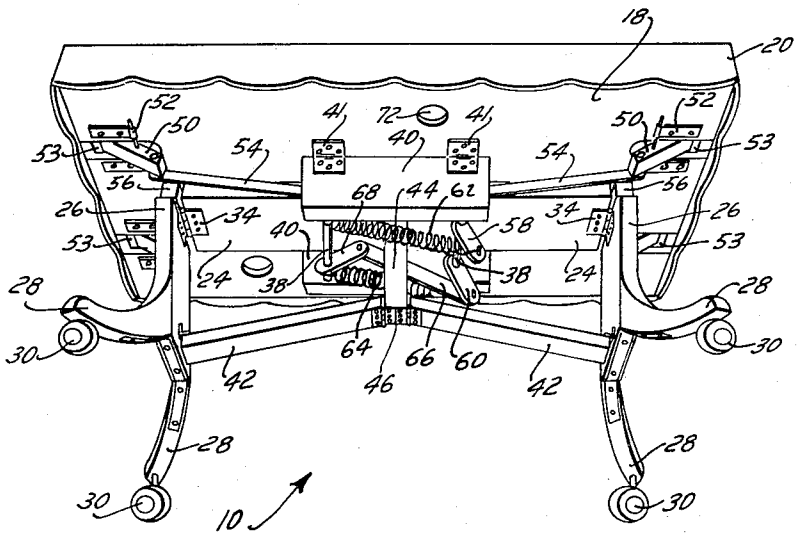


FIG. 3

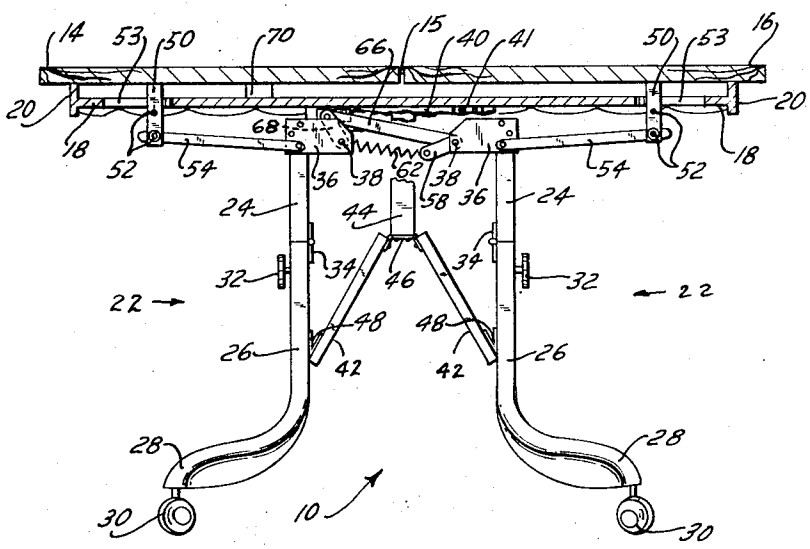


FIG. 4

INVENTOR
ANDREW A. BARABAS
BY
Curtis, Morris & Safford
ATTORNEYS

CONVERTIBLE TABLE

This invention relates to tables convertible from one form to another.

Tables convertible from a low coffee table form into a relatively larger dining table form are commercially available. A particularly advantageous table of this type is shown in U.S. Pat. No. 2,846,282 to Barker. However, even that table can be improved upon. Specifically, one of the objects of this invention is to improve upon such a table by providing a table with a leg structure which has a relatively smaller spread when the table is in its upright position so that a dining table top of moderate size is provided, but which will have ample leg room for people to sit at the table. A further object of the present invention is to provide such a table which is easily converted from one form to another, and which is attractive in appearance and yet moderate in cost.

The foregoing objects are met, in accordance with the present invention, by the provision of a table having an enlargeable top including a pair of hinged leaves foldable on top of one another, and a receptacle for holding the folded leaves to form a relatively small table top. Elevating means are provided for supporting the unfolded table top above the receptacle. The elevating means are hingedly connected to a foldable table support structure which actuates the elevating means automatically when the legs are folded to spread them apart and shorten them, and unfolded to move them together and lengthen them.

The foregoing and other objects and advantages will be described in or apparent from the following description and in the drawings. In the Drawings:

FIG. 1 is a perspective view of the table of the present invention in a first condition in which the table is relatively small and low, but with widespread legs;

FIG. 2 is a perspective view of the same table in its enlarged taller condition, with longer legs which are closer together;

FIG. 3 is a perspective view of the underside of the table in its condition shown in FIG. 1;

FIG. 4 is a cross-sectional view taken along line 4—4 of FIG. 2.

FIG. 1 illustrates the table **10** in its coffee table or cocktail table form; that is, in a form in which its top **12** is relatively small, and the legs are relatively short and spread apart by a relatively great distance. The top **12** consists of two rectangular halves **14** and **16** which are folded on top of one another and rest in a tray or receptacle which is formed by a bottom wall **18** and four side walls indicated generally at **20**.

In converting the table **10** from the coffee table form shown in FIG. **1** to the dining table shown in FIG. **2**, the user lifts upwardly on the sides **20** of the table top receptacle, and spring means in the support structure causes the table support structure to unfold and lengthen the legs while moving them closer together to the position shown in FIG. **2**. Simultaneously, the table top halves **14** and **16** are pushed upwardly out of the receptacle. Then the user unfolds the top halves **14** and **16** on a hinge **15** and twists the top by 90° on a pivot structure of the type described in U.S. Pat. No. 2,846,282 to lock the top in the position shown in FIG. **2**. In this position, the height of the table is sufficient so that people can pull their chairs under the edges of the table on all sides and use it for dining purposes. The table leg structure is small enough to give the people ample leg room.

Referring now to FIGS. **3** and **4** as well as FIGS. **1** and **2**, the table support structure includes a pair of foldable pedestals **22**. Each of the pedestals includes an upper section **24** (see FIG. **4**) and a lower section **26**. The upper and lower sections **24** and **26** are connected together by means of a hinge **34**. Each of the pedestals has outwardly curving feet **28** with casters **30** on them so that the table can be rolled and the legs can be unfolded and folded more easily. The feet **28** extend outwardly (to the left and to the right) in FIG. **4** in order to give further lateral stability to the table. The upper end of each pedestal section **24** is fastened to a metal plate **36**. Each of the plates **36** is secured to a rod **38** which is pivotably mounted in holes in a pair of spaced support boards **40** (FIG. **3**) which are fastened to the bottom panel **18** of the receptacle by means of metal angle members **41**. Each of the lower pedestal sections **26** is connected to a support arm **42** by means of a hinge **48** (FIG. **4**). The other end of each support arm **42** is connected to a wooden post **44** which is fastened to the underside **18** of the table. The arms **42** are connected to the post **44** by means of a double hinge **46**. A knob **32** also is connected to the outer surface of each pedestal section **26**. The knobs **32** can be pulled on to fold the pedestals **22** and assist in lowering the table.

Referring particularly to FIG. **3**, two levers **58** and **60** are secured to the right hand rod **38**. A spring **62** is fastened between the far end of lever **58** and the rod **38** shown at the left in FIG. **3**. A second spring **64** is fastened between the end of lever **60** and the left rod **38**. A toggle linkage is formed by a short link **68** secured to the left rod **38**, and a long link **66** pivotably connected to one end of the link **68** and one end of the link **60**. The springs **62** and **64** are tension springs which tend to pull the levers **58** and **60** toward the left rod **38**. Thus, they exert a force which tends to force the pedestals **22** to take the form shown in FIG. **4**.

When the pedestals **22** are unfolded in the position shown in FIG. **4**, the toggle linkage comprising links **66** and **68** is in a position past its "center," and prevents the pedestals from folding, which might otherwise occur because of the weight of the table top and objects on the table. This tends to prevent the legs from folding when the table is in use for dining. The linkage **66**, **68** also couples the two pedestal structures together so that they both move when either moves. A similar leg structure is shown in U.S. Pat. Nos. 2,544,228 and 2,544,229.

As is shown in FIG. **3**, there are four symmetrically located slots **53** in the under-surface **18** of the table. Extending through the slots **53** are a plurality of elevating blocks **50** which are pivotably mounted on the under-surface **18** by means of hinges **52**. The lower end of each elevating block or projection **50** is pivotably connected to a link **54** which is pivoted at its other end to the plate **36** to which the upper section **24** of the pedestal is connected.

As is shown in FIG. **4**, each of the projections **50** is swung from a lowered position which it takes when the table is in its lower position as shown in FIG. **3** to an up-raised position as shown in FIG. **4**. In this up-raised position, each projection pushes the table top sections

14 and 16 upwardly out of the receptacle so that they can be grasped. The sliding or floating pivot arrangement shown schematically at 70 in FIG. 4 then permits the table top to be rotated and locked in position in the manner described in U. S. Pat. No. 2,846,282. The details of this pivoting and locking arrangement are not disclosed since they are known and do not form a part of the present invention.

When the table is in its lower position as is shown in FIG. 3, the projections 50 are in a lowermost position in which they support the folded table top halves slightly above the lower surface 18 of the tray. In this position, the springs 62 and 64 exert only a relatively slight restorative force to restore the pedestals to the unfolded position shown in FIG. 4. The weight of the folded-up table is entirely sufficient to hold the pedestals in their folded positions because of the lack of sufficient restorative power in the springs 62 and 64 to unfold the pedestals. However, as the table is lifted upwardly, the effective moment arms of the levers 58 and 60 increase so that the restorative force applied by the springs increases and the springs will automatically raise the table to the uppermost position and pivot the projections 50 outwardly and lift the table top out of the receptacle.

When the pedestals are unfolded, each of the upper edges of the lower pedestal sections 26 rests against a projecting wooden member 56 which is secured to the underside 18 of the table.

Some of the advantages of this table are that it can have a top of small size and a low, widespread leg structure for use as an attractive coffee table, and yet it can have a larger top, still of moderate size, with a taller leg structure which is considerably narrower so as to give ample leg room for people to sit at the table for dining. The table is attractive, easy to operate and makes highly efficient use of home floor space. The table is especially valuable in modern apartments in which floor space is so limited.

The above description of the invention is intended to be illustrative and not limiting. Various changes or modifications in the embodiments described may occur to those skilled in the art and these can be made without departing from the spirit or scope of the invention.

I claim:

1. A table having an enlargeable top and a leg structure to support said top at a variable height, said top including a pair of foldable leaves, a tray for receiving said leaves when folded upon one another, said leg structure including a pair of support members pivotably secured to the underside of said tray at spaced-apart locations, each of said support members having an upper section and a lower section pivotably connected to said upper section, means for pivoting said upper and lower sections with respect to one another to shorten and spread said support members apart, and a plurality of support projections positioned to support said leaves at the top of said tray, a linkage hingedly connected to said support members so as to move said projections to a retracted position allowing said leaves to fit into said tray when said support member sections are pivoted with respect to one another, a spring connected to urge said upper and lower sections of said support members into alignment with one another and thus maximize their height, and means connecting said spring to said support members to urge said projections into an extended position to support said leaves at the top of said tray.

* * * * *