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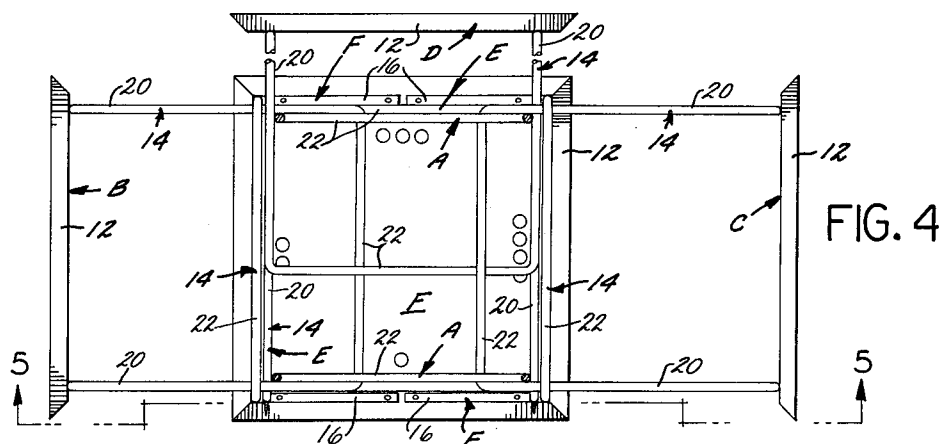
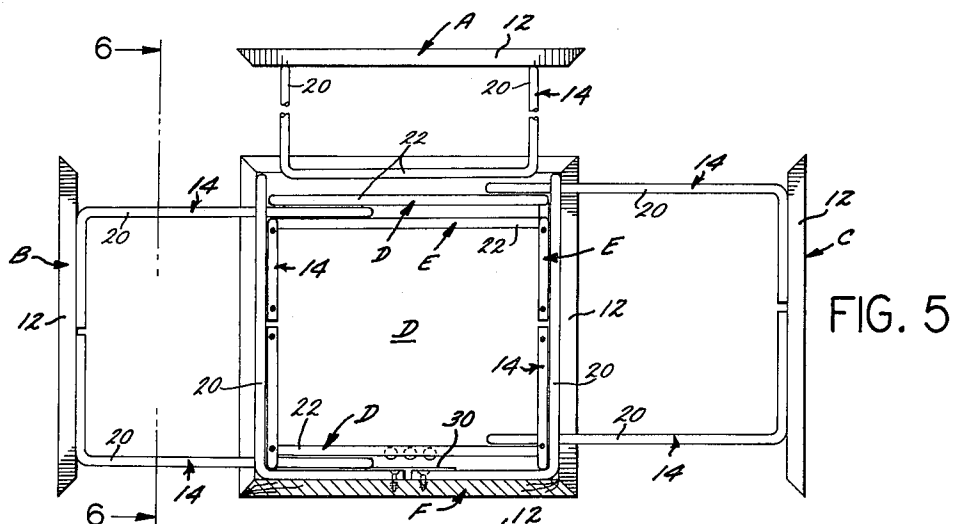
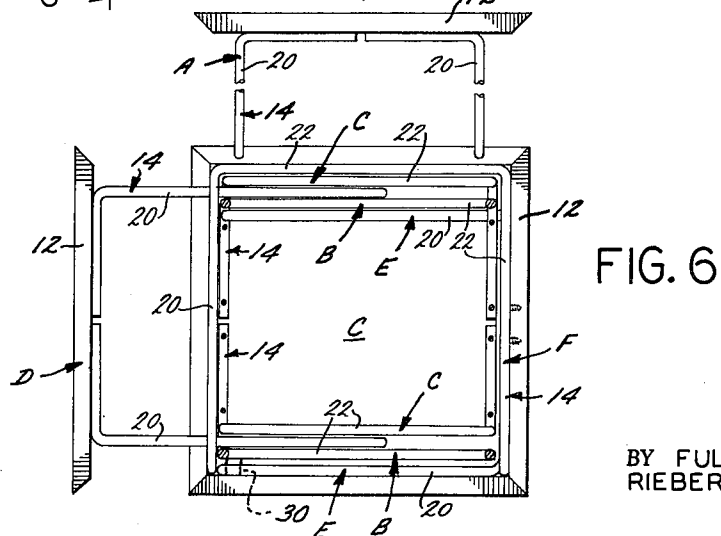
P. NORREKLIT

3,205,839

COMPOSITE TABLE

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2 Sheets-Sheet 2



INVENTOR.
POUL NORREKLIT

BY FULWIDER, PATTON,
RIEBER, LEE & UTECHT

ATTORNEYS

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3,205,839

COMPOSITE TABLE

Poul Norrekli, Rungsted, Denmark, assignor to Moredi, Inc., Long Beach, Calif., a corporation of California
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The present invention relates to a composite table, and more particularly to a composite table which can be disassembled to provide a plurality of individual tables.

Tables of the nestable type, designed primarily for use in the home, have been on the market for a number of years. Such tables in their nested condition occupy a minimum of space and are adapted for disassociation to provide a number of individual tables for guests and the like. One such arrangement provides a plurality of individual and identical tables stacked one on top of the other, each table being rotated slightly relative to the others to enable the vertically disposed legs thereof to slide past complementary cutout portions in subjacent table tops. Disassembly is accomplished by merely raising the uppermost table until it is disengaged from the remaining tables, and repeating the operation until all the tables are separated. Another common arrangement utilizes individual tables having legs which are not normally vertically oriented. This permits easier nesting since the table legs need not be keyed to any particular cutout portion of the subjacent table top.

Most of these prior art nesting table designs are unsatisfactory, however, in that in the assembled state they are not aesthetically attractive, have no function until disassembled, and constitute a superfluous and ungainly item unsuited to the average living room. Moreover, the table tops soon become marred from inadvertent engagement with the legs of other tables during assembly and disassembly.

Accordingly, it is an object of the present invention to provide a composite table which comprises a plurality of tables adapted for interengagement to define a closed geometric figure which is aesthetically attractive and which constitutes an article of furniture having a useful table top. The assembled tables preferably define a cube which can be used as an end or lamp table, for example, the cube being easily disassemblable to provide a number of individual, substantially identical tables for use by guests and the like, and wherein the legs thereof are normally vertically oriented. In addition, the table tops of the assembled tables do not engage in overlying relationship so that marring and scratching during assembly and disassembly is substantially eliminated.

A further object of the invention is the provision of a composite table of the aforementioned character in which each of the individual tables includes a normally horizontally oriented table top and legs connected to the table top for supporting the same, the individual tables being adapted for arrangement with the legs thereof interengaged whereby the assembled table tops enclose the legs to define a closed geometric figure.

Another object of the invention is the provision of a cube table of the aforementioned character comprising three pairs of tables, each having a normally horizontally oriented table top and normally vertically oriented legs connected to the table top for supporting the same, and wherein each pair of tables is adapted for arrangement with the table tops in confronting relationship and the legs interengaged, the three pairs of tables being adapted for arrangement such that the table tops enclose the legs and define a closed cube.

A further object of the invention is the provision of a cube table of the aforementioned character wherein the tables are adapted for assembly in a sequence such that

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the legs of the first tables to be assembled provide guide surfaces for the legs of subsequently assembled tables whereby, for example, the legs of one table are interposed between the legs of a confronting pair of tables so that the legs of such confronting tables are prevented from entangling and jamming.

Yet another object of the invention is to provide a cube table of the aforementioned character wherein each individual table includes a pair of lengths of U-shaped tubing secured to the underside of the table top in spaced apart relationship, the depending, normally vertically oriented portions of each of the U-shaped sections constituting the legs at one side of the table. The base of the U-shape constitutes a guide or retainer adapted to force others of the assembled tables in closer, tighter interengagement. More particularly, when a pair of the tables are arranged in confronting relationship with the legs thereof in interesting, complementary relationship, the legs of another table are insertable into the open space between the legs of the confronting tables, and into engagement with the retainers of the confronting tables to force such retainers apart and bring the confronting table tops thereof closer together. This is particularly important when the last of the tables is assembled to the already assembled tables, the legs of the last table engaging the retainers of the already assembled tables to urge them apart, whereby the joints between the assembled table tops are substantially tightly closed. The assembled tables then appear to be a single, integrated item of furniture whose outward appearance provides no clue that it is in reality a plurality of individual tables assembled in the form of a cube.

Another object of the invention is the provision of a cube table of the aforementioned character which is comparatively light in weight, inexpensive to manufacture, and comparatively simple to assemble and to disassemble, suitable indicia preferably being provided on each of the tables to apprise the user of the preferred sequence of assembly.

Other objects and features of the invention will become apparent from consideration of the following description taken in connection with the accompanying drawings, in which:

FIG. 1 is a perspective view of the composite cube table of the present invention in its assembled condition;

FIG. 2 is a perspective view of the underside of the last to be assembled of the individual tables constituting the cube table of FIG. 1, and particularly illustrating one means to facilitate removal of such table upon disassembly of the cube table;

FIG. 3 is a slightly enlarged perspective view of the cube table of FIG. 1, illustrating the individual tables thereof in a partially disassembled condition, the table top of one of the tables being removed for clarity;

FIG. 4 is a view, on a diminished scale, taken along line 4-4 of FIG. 3;

FIG. 5 is a view taken along the line 5-5 of FIG. 4; and

FIG. 6 is a view taken along the line 6-6 of FIG. 5, it being noted that the table top omitted for clarity in FIG. 3 has been similarly omitted in FIGS. 4 through 6.

Referring now to the drawings, and particularly to FIGS. 1 and 2, there is illustrated an article of furniture in the form of a composite or cube table, generally designated by the numeral 10, which is constituted of six interengaging substantially identical tables A, B, C, D, E, F. Table A is particularly illustrated in FIG. 2 and is in large part substantially identical to the other tables, and the description hereinafter made with respect to table A is equally applicable to the other tables unless otherwise noted.

Table A includes a flat, square, and normally hori-

zontally oriented table top 12 whose edge margins are beveled at approximately a forty-five degree angle. A pair of leg sections 14 are located at opposite sides of the table top 12 and are preferably formed by a pair of lengths of tubing, each of which is characterized by a U-shape having inwardly projecting lateral portions 16 at the upper extremities. The portions 16 are rigidly secured to the underside of the table top 12 by a plurality of suitable fasteners such as wood screws 18. The vertical portions of the leg sections 14 constitute legs 20, and the bases of the U-shaped sections 14 constitute parallel, spaced apart guides or retainers 22. It will be noted that the depending portion of each leg section 14, constituted by a pair of the legs 20 and the interconnecting retainer 22, falls within a plane normal to the table top 12 and laterally spaced from the corresponding parallel plane of the opposite leg section 14. These parallel planes will be referred to hereinafter to facilitate a description of the interengagement between the tables A-F.

Table A includes a cylindrical plug 24 located in a complementary opening provided in the center of the table top 12, the plug 24 being supported in position by securement to one extremity of an elongated, resilient support 26 which is secured at its opposite extremity to the underside of the table top 12. The plug 24, which is normally flush with the upper surface of the table top 12 to form a smooth continuation thereof, can be depressed below the table top 12 against the bias of the support 26 to afford an opening through which a person may insert a finger to facilitate removal of the table A from the other tables. Removal of the table A is the initial step in disassembly of the composite table 10, as will be seen.

Although the tables constituting the composite table 10 are substantially identical in appearance, the leg sections 14 thereof are not all affixed in identical positions on the undersides of their associated table tops 12. As will become apparent hereinafter, location of the leg sections of one table in offset relationship to the leg sections of another table facilitates interesting therebetween.

Referring now to FIGS. 3 through 6, the tables A through F are preferably assembled in a particular sequence, the sequence of assembly being indicated, for example, by indicia 28 provided upon the undersides of the tables, it being noted that the indicia 28 preferably takes the form of painted dots as illustrated. Thus, a single dot on tables F and E indicates that these two are to be mated first, and a pair of dots on table B indicates that it is to be mated to table F next, and at the location of the two dots on the table F, and so on.

When it is desired to assemble the tables, table F is placed upside down on a supporting surface, such as the carpeted floor of a living room, and table E is placed upon table F with an edge margin of its top 12 in abutment with an edge margin of the top 12 of table F, the planes of the tops 12 of tables E and F being perpendicular to each other. In addition, the leg sections 14 of table F are seen to lie in a pair of spaced apart vertical planes, while the leg sections 14 of table E lie in a pair of parallel, spaced apart horizontal planes. Moreover, the legs 20 of the table E lie inside of the legs 20 of table F to permit the top 12 of the table E to closely abut the top 12 of the table F.

In order to facilitate the maintenance of table E in position upon table F during subsequent assembly of the other tables, there is preferably provided a locking element 30 to engage the retainer 22 of the lowermost leg section 14 of table E. The element 30 is constituted by an elongated wooden block rigidly secured to the underside of the top 12 of table F, and the retainer 22 of the lowermost leg section 14 of table E lies on the far side of the element 30, as viewed in FIG. 3, the element 30 being positioned such that the retainer 22 just fits over the element 30 when the complementary edge margins of the tops 12 of tables E and F are in forcible abutment.

Table B is the next table assembled, and the leg sec-

tions 14 thereof are oriented to lie in a pair of parallel, vertically spaced apart horizontal planes which lie above the corresponding horizontal planes within which the pair of leg sections of the table E lie. With this arrangement, the retainers 22 of table E serve as a guide for the slidable insertion of the leg sections 14 of table B, it being noted that the legs 20 of table D lie inside the legs 20 of the table F.

Table D is the next table to be assembled to the already assembled tables, and its table top 12 is arranged in confronting relationship with the table top 12 of table E, the leg sections 14 of table D being oriented in a pair of parallel, vertically spaced apart and horizontal planes which overlie the corresponding horizontal planes of the leg sections 14 of the tables E and B, as best viewed in FIG. 6. The legs 20 of the table D slide inside the legs of the table F, substantially in vertical alignment with the legs 20 of the table E. It is also to be noted that the leg sections 14 of the table B, by virtue of their location between the leg sections 14 of the tables E and D, guide the leg sections of the table D during insertion thereof into the assemblage, preventing entanglement thereof with the leg sections of the table E.

Thus, the confronting tables D and E are properly oriented relative to each other by the immediately located leg sections 14 of the table B.

The table C is next assembled and for this purpose its leg sections 14 are oriented in parallel, vertically spaced apart horizontal planes lying above the corresponding leg sections 14 of the table D, as best viewed in FIG. 5. The legs 20 of the table C pass inside the legs 20 of the table F, in the same fashion as the corresponding orientation of the legs B relative to the table F, and engage the retainer 22 of the table F to urge the table C against the table F. The retainers 22 of the table D are thus located between the leg sections 14 of the tables B and C, and afford a guide over which the leg sections 14 of the table C slide during insertion thereof, the legs 20 of the table C overlying the corresponding legs of the table B substantially in vertical alignment therewith.

Summarizing the assembly thus far, the table E is securely locked in proper position relative to the table F by means of the locking element 30. The opposite table D, in confronting relationship with the table E, is relatively loosely positioned with an edge margin thereof in close proximity to a corresponding edge margin of the table F. Similarly, the tables B and C are loosely positioned with their lower edge margins in proximity with the corresponding edge margins of the table F. As will next be described, the last table A to be assembled is effective to forcibly urge tables B, C and D into tight abutment with the other tables so that the composite table 10 has the appearance of an integral item of furniture.

The last table A is lowered into position, the assembler first pushing the plug 24 downwardly in order to use the opening within which it normally is disposed to facilitate handling of the table A. The leg sections 14 of table A are oriented so as to lie in parallel, spaced apart vertical planes substantially normal to the vertical planes within which the leg sections 14 of the table F lie. As best viewed in FIGS. 4 through 6, the leg sections 14 of the table A slide inside the legs 20 of the tables B and C, the legs 20 of the table A engaging the retainers 22 of the tables B and C to force such retainers away from each other and thereby urge the edge margins of the tables B and C toward each other and firmly against the adjacent edge margins of the table F.

In addition, the legs 14 of the table A slide within the retainers 22 of the tables D and E, urging such retainers away from each other and consequently urging the table tops 12 of the tables D and E toward each other into firm engagement at their edge margins with the corresponding edge margins of the tables F, B and C. The forcible engagement of the leg sections 14 of the table

A with the leg sections of the other tables also has the

effect of maintaining the table A in position with its edge margins firmly engaged with the adjacent edge margins of the other tables whereby the assembled tables A through F form a single, apparently integral item of furniture which can be disassembled only by first removing the table A.

The table top 12 of the table A in the composite table 10 is useful for supporting a lamp or the like, or for use as an end table, and at all times the composite table 10 is ready for disassembly so that the individual tables A through F can be used as separate tables. In addition, it is noted that the composite table 10 has all the attributes of a piece of fine furniture since all of the exposed surfaces are finished table tops 12.

From the description hereinabove made, it will be apparent that the leg sections 14 of the various tables do not occupy an identical position with respect to their associated table tops 12. Thus, for example, the leg sections 14 of the tables B and C are differently located so that they may slide past each other, while their associated table tops 12 are necessarily horizontally aligned in order to properly join with the lower or base table F. An examination of the various figures will immediately apprise one skilled in the art of the proper location of the leg sections 14 of the various tables A through F.

If desired, one of the tables A through F could be omitted so that the composite table 10 would be characterized by an open end for positioning adjacent the floor or other supporting surface. However, the use of six tables is preferred, as is the cuboid configuration of the assembled tables.

The principles involved in assembling the tables to form the composite table 10 are particularly adapted to the formation of a cube table, but it is contemplated that other geometric forms may be provided also by appropriately beveling the edges of the table tops 12 and adjusting the points of interengagement between the leg sections 14, as will be apparent.

From the foregoing it is seen that a composite table 10 has been provided which is a useful article of furniture in its assembled state, and which is adapted for quick disassembly to provide a plurality of individual tables for use by different persons. The composite table 10 is an attractive piece of furniture, particularly in association with "modern" furniture, and the components thereof are light in weight and relatively inexpensive to manufacture. The assembly of the table 10 is facilitated by the provision of the indicia 28 so that the average householder has no difficulty in properly orienting the tables during assembly and disassembly. Moreover, during such assembly and disassembly the individual tables do not nest or interengage in such a way that the table tops 12 thereof can become marred or scratched, the leg sections 14 providing the primary interlocking engagement which maintains the tables in position.

Various modifications and changes may be made with regard to the foregoing detailed description without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. A cube table comprising:

first, second, and third pairs of tables having table tops, legs connected to said table tops for supporting said table tops, and retainers carried by said legs, each pair of said tables being adapted for arrangement with the table tops thereof in confronting relationship and the legs thereof internested, and all of said pairs of tables being adapted for arrangement such that the legs of each pair internest with the legs of the other pairs whereby the table tops thereof define a closed cuboid body, the retainers of said first and second pairs of tables being engageable by the legs of one table of said third pair of tables whereby said last-mentioned legs urge said first and second pairs of tables toward each other into tightly nested rela-

tionship with respect to the other table of said pair of tables.

2. A cube table comprising:

six tables, each having a flat, normally horizontally oriented table top and normally vertically oriented legs connected to said table top, said tables being adapted for arrangement with the legs thereof internested and the table tops defining a cube;

a first one of said tables being adapted for orientation with the table top thereof normal to the table top of a second one of said tables in edge abutting relationship therewith;

a third one of said tables being adapted for orientation with the table top thereof normal to the table top of said first table and in confronting relationship with the table top of said second table, and with the legs thereof positioned inside the legs of said first table and in overlying relationship with the legs of said second table;

fourth and fifth ones of said tables being adapted for orientation with the table tops thereof in confronting relationship with each other and normal to the table top of said first table, and with the legs thereof overlying each other on opposite sides of the legs of said third table;

and a sixth one of said tables being adapted for orientation with the table top thereof parallel to the table top of said first table in edge abutting relationship with the table top of said second, third, fourth, and fifth tables, and with the legs thereof inside the legs of said second, third, fourth, and fifth tables whereby the table tops of said six tables define a cube.

3. A cube table comprising:

six tables, each having a flat, normally horizontally oriented table top and normally vertically oriented legs connected to said table top, said tables being adapted for arrangement with the legs thereof internested and the table tops defining a cube;

a first one of said tables including support means for engagement by the legs of a second one of said tables to anchor the table top thereof in edge abutting, normal relationship with the table top of said first table;

a third one of said tables being adapted for orientation with the table top thereof normal to the table top of said first table and in confronting relationship with the table top of said second table, and with the legs thereof positioned inside the legs of said first table and in overlying relationship with the legs of said second table;

fourth and fifth ones of said tables being adapted for orientation with the table tops thereof in confronting relationship with each other and normal to the table top of said first table, and with the legs thereof overlying each other on opposite sides of the legs of said third table;

and a sixth one of said tables being adapted for orientation with the table top thereof parallel to the table top of said first table in edge abutting relationship with the table top of said second, third, fourth, and fifth tables, and with the legs thereof inside the legs of said second, third, fourth, and fifth tables whereby the table tops of said six tables define a cube.

4. A cube table comprising:

six tables, each having a flat, normally horizontally oriented table top and normally vertically oriented legs connected to said table top, said tables being adapted for arrangement with the legs thereof internested and the table tops defining a cube;

a first one of said tables including support means for engagement by the legs of a second one of said tables to anchor the table top thereof in edge abutting, normal relationship with the table top of said first table;

a third one of said tables being adapted for orientation with the table top thereof normal to the table top of said first table and in confronting relationship with

the table top of said second table, and with the legs thereof positioned inside the legs of said first table and in overlying relationship with the legs of said second table;

fourth and fifth ones of said tables being adapted for orientation with the table tops thereof in confronting relationship with each other and normal to the table top of said first table, and with the legs thereof overlying each other on opposite sides of the legs of said third table;

and a sixth one of said tables being adapted for orientation with the table top thereof parallel to the table top of said first table in edge abutting relationship with the table top of said second, third, fourth, and fifth tables, and with the legs thereof inside the legs of said second, third, fourth, and fifth tables whereby the table tops of said six tables define a cube, each of said second, third, fourth, and fifth tables including retainers engageable by the legs of said sixth table whereby said last-mentioned legs urge the table tops of said second and third tables, and the table tops of said fourth and fifth tables, respectively, toward each other into tightly nested relationship.

5. A composite table comprising:

at least five tables, each having a flat, normally horizontally oriented table top and normally vertically oriented legs connected to said table top, said legs lying in a pair of planes of assembly adjacent opposite edges of said table top, respectively, each of said tables also including retainers connected to the legs thereof, said tables being adapted for arrangement with the legs thereof internested and the table tops defining a cuboid body, first and second ones of said tables being adapted for orientation with the table tops thereof in confronting, parallel relationship, and with said planes of assembly of said first table underlying those of said second table;

third and fourth ones of said tables being adapted for orientation with the table tops thereof in confronting, parallel relationship with each other, and in edge abutting normal relationship with the table tops of said first and second tables, and with said planes of assembly of said third table underlying those of said second table, and said planes of assembly of said fourth table overlying those of said second table whereby the legs of said second table constrain the legs of said third and fourth tables against entanglement;

and a fifth one of said tables being adapted for orientation with the table top thereof normal to the table tops of said first, second, third, and fourth tables in edge abutting relationship with the edge margins thereof, and with the planes of assembly of said fifth table normal to said planes of assembly of said first, second, third, and fourth tables, and with the legs of said fifth table oriented inside the legs of said first, second, third, and fourth tables and in engagement with said retainers of the latter said tables for urging

the table tops of said latter tables toward each other into tightly nested relationship.

6. A composite table comprising:

six tables, each having a flat, normally horizontally oriented table top and normally vertically oriented legs connected to said table top, said legs lying in a pair of planes of assembly adjacent opposite edges of said table top, respectively, each of said tables also including retainers connected to the lower extremities of the legs thereof and projecting away from said legs, said tables being adapted for arrangement with the legs thereof internested and the table tops defining a cube, a first one of said tables being adapted for orientation with the table top thereof normal to the table top of a second one of said tables in edge abutting relationship therewith;

a third one of said tables being adapted for orientation with the table top thereof in confronting relationship to the table top of said second table, and with said planes of assembly of said third table normal to those of said first table and parallel to and overlying those of said second table;

fourth and fifth ones of said tables being adapted for orientation with the table tops thereof in confronting, parallel relationship with each other, and in edge abutting normal relationship with the table tops of said second and third tables, and with the planes of assembly thereof parallel to and on opposite sides of those of said third table whereby the legs of said third table prevent entanglement between the legs of said fourth and fifth tables;

and the sixth one of said tables being adapted for orientation with the table top thereof normal to the table tops of said second, third, fourth, and fifth tables in edge abutting relationship with the edge margins thereof, and with the planes of assembly of said sixth table normal to the planes of assembly of said second, third, fourth, and fifth tables, and with the legs of said sixth table oriented inside the legs of said second, third, fourth, and fifth tables and in engagement with said retainers of said second, third, fourth, and fifth tables for urging the table tops of said latter tables toward each other into tightly nested relationship.

7. A composite table according to claim 6 wherein each table includes a pair of retainers, each in the form of an element extending between the lower extremities of a pair of said legs in one of said planes of assembly.

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FRANK B. SHERRY, *Primary Examiner.*