

May 19, 1970

J. P. BUTERA
MODULAR FURNITURE

3,512,857

Filed June 26, 1968

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Fig. 1.

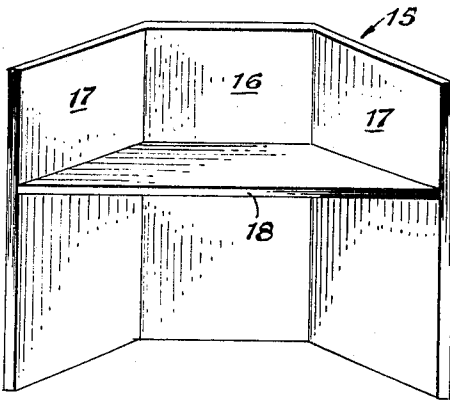


Fig. 2.

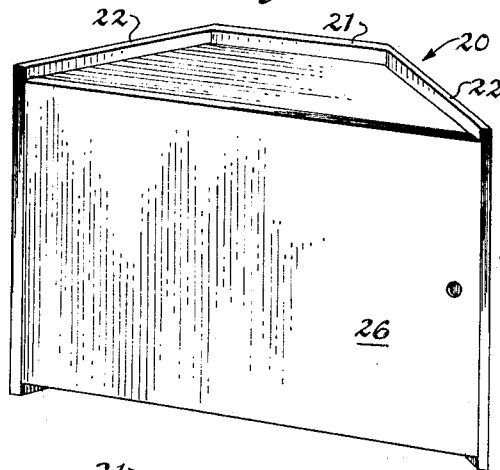
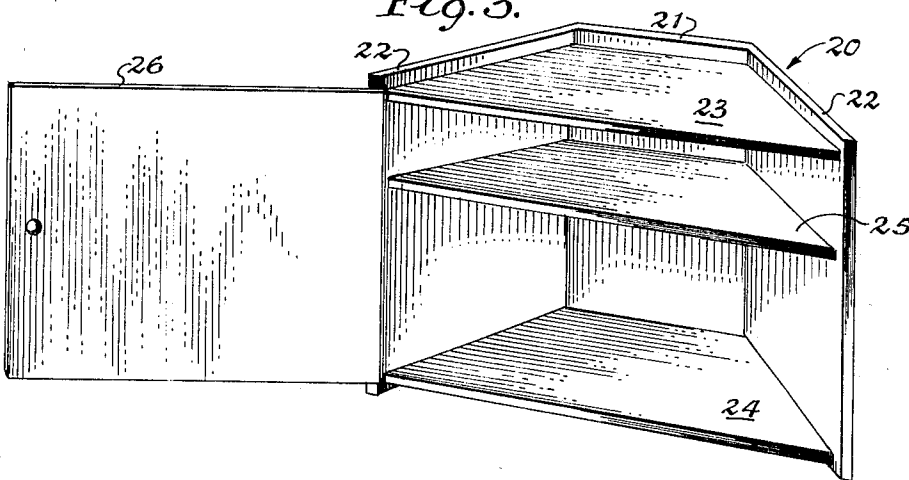


Fig. 3.



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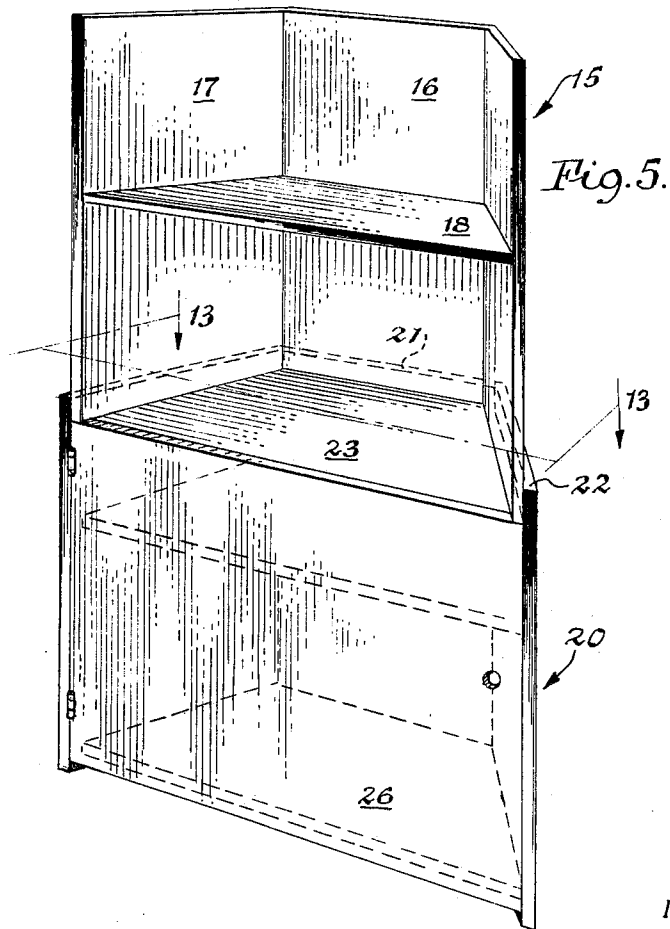
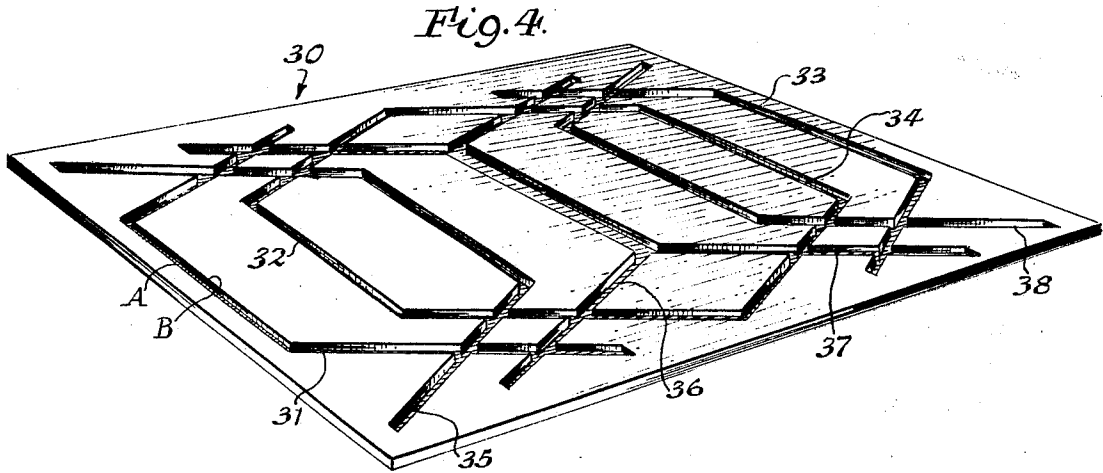
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Fig. 6.

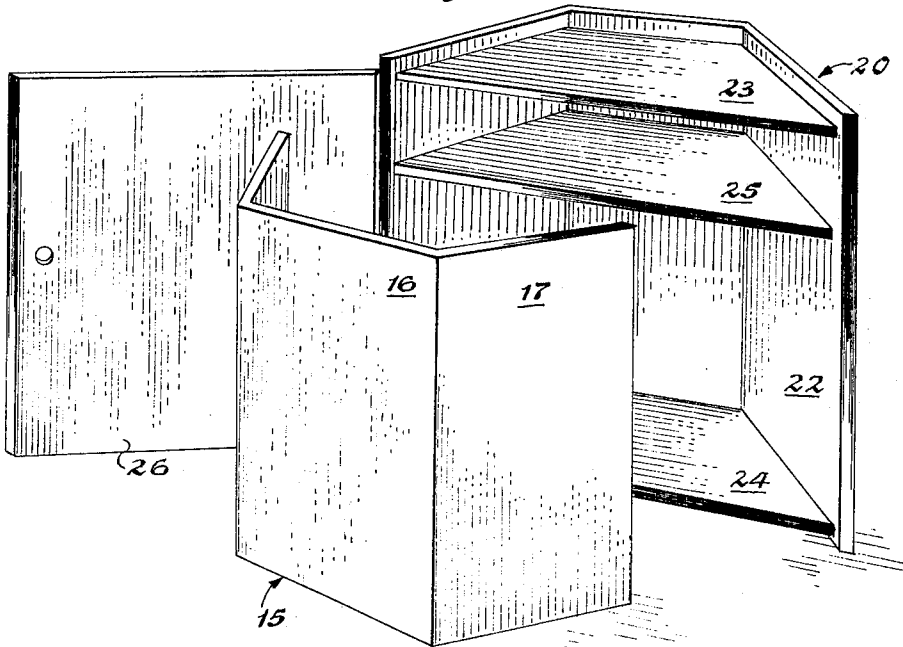


Fig. 7.

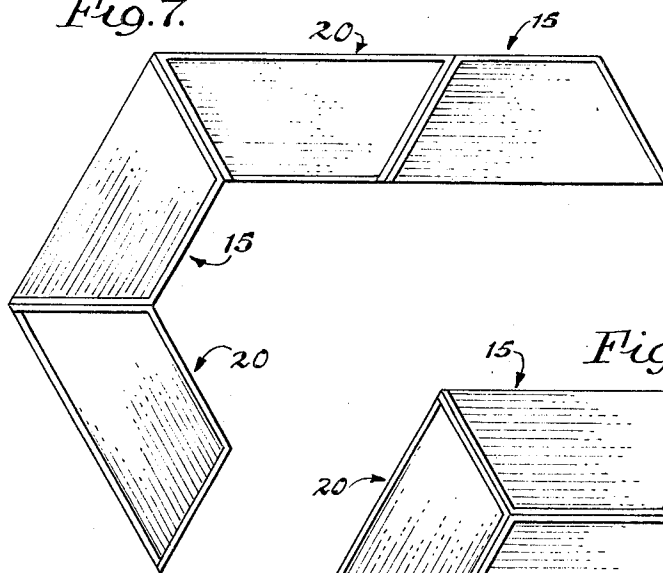
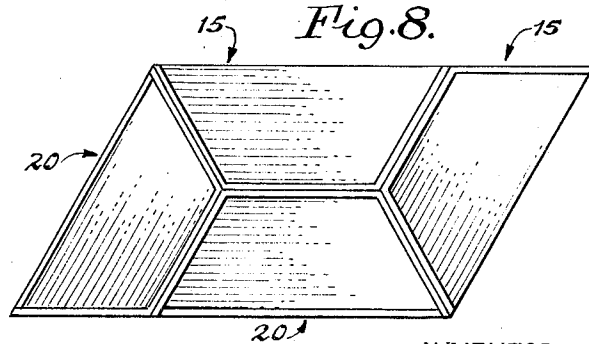


Fig. 8.



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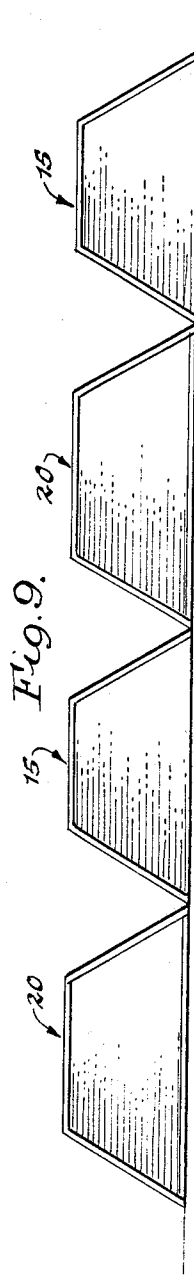
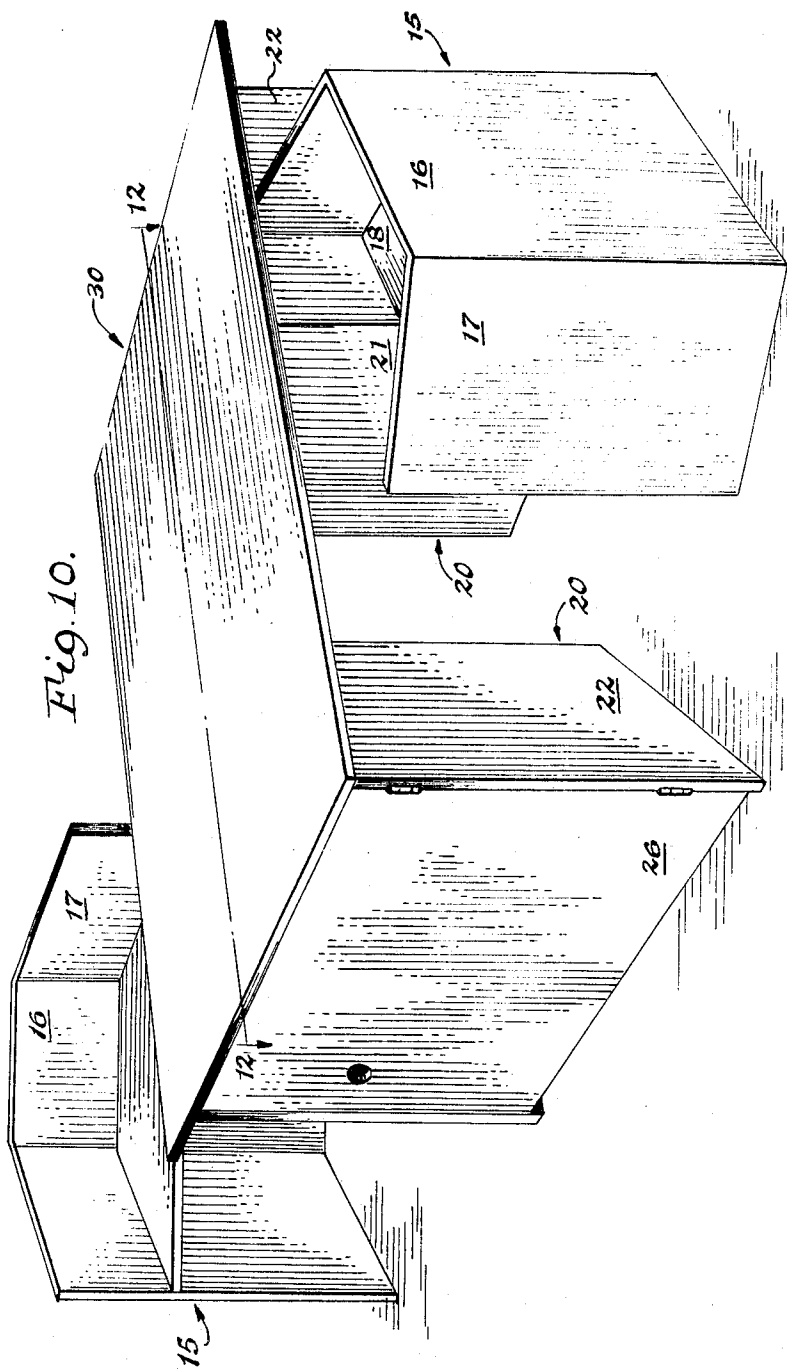
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Fig. 11.

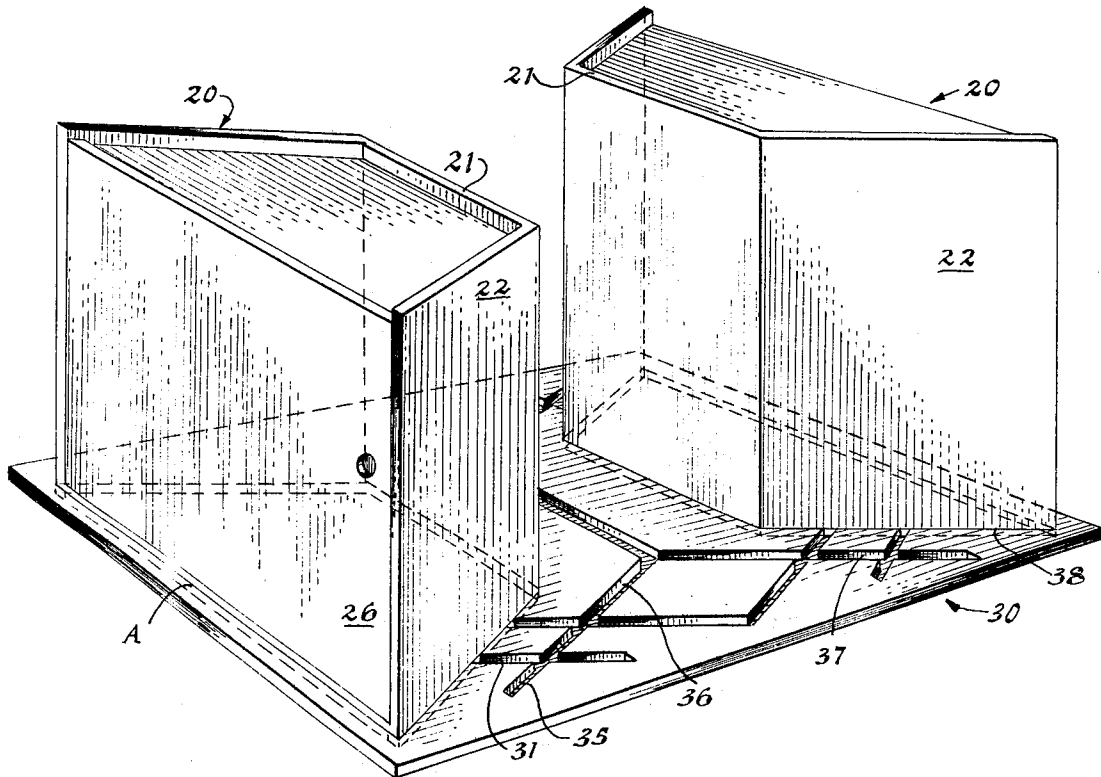


Fig. 12.

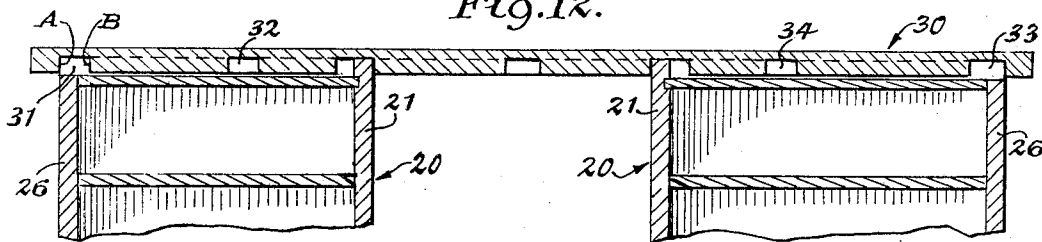
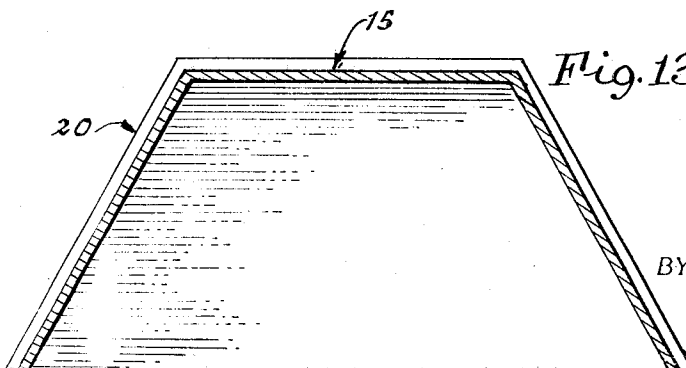


Fig. 13.



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MODULAR FURNITURE

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6 Claims

ABSTRACT OF THE DISCLOSURE

Modular interfitting furniture components comprising chiefly a seat component and a desk or cabinet component. Each has a vertical rear wall and a pair of vertical side walls flaring forwardly therefrom so that the components are trapezoidal in plan view. The desk or cabinet component is slightly larger than the seat component so that the lower or upper ends of the seat component fit within the upper or lower ends of the desk or cabinet component. A table top element is grooved at its under side to seat on either the seat or desk components whereby the latter serve as pedestals.

BACKGROUND OF THE INVENTION

This invention relates to modular playroom furniture wherein several modules or components may be employed separately or in various combinations with each other to provide furniture articles, play structures, and assemblages having a wide variety of uses and adaptations in a playroom, either for utility as furniture or for play purposes.

While modular or sectional furniture is not new, either for playroom or nursery use or for general adult use, sectional or modular furniture of the prior art generally consists of sections which are used jointly or in combination in a more or less prescribed arrangement to produce a definite combinational utility. Furthermore, in many sectional or modular furniture arrangements of the prior art, assembly of the sections or modules requires securing or fastening devices and often special knowledge or skills for assembling the components.

Still further, in modular or sectional furniture which is generally available the sections or modules have little or no utility apart from their use in the primary combinations for which they are designed and intended.

SUMMARY OF THE INVENTION

The modular furniture combination of the present invention involves, essentially, only two different components or modules, which components or modules may be employed separately or in various positional combinations. The modules are assembled or juxtaposed in their various combinations without the use of tools or fastening devices of any kind and such positional assemblies are effected in such a simple manner that children may readily dispose the components in their various positions and combinations.

Speaking generally, the basic modular combination of the invention comprises two essential components, one which may be called a seat unit and the other which may be called a desk or cabinet unit. The seat unit resembles an arm chair with divergent arms and comprises merely four wood parts which are rigidly secured to each other. These four parts consist of a vertical back member, two vertical side members, and a seat member. The chest or desk component is the same as the seat unit as viewed in plan but slightly larger so that the units interfit vertically. Both components are trapezoidal as viewed in plan.

The various combinations in which the foregoing two components or modules may be employed will be best understood from the following more complete description

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of the two basic exemplary components. In addition to the seat unit and the desk or cabinet unit, a third optional unit in the form of a table top greatly extends the versatility of the modular arrangement of the present invention. This third component will likewise be more fully disclosed in the following detailed description of a preferred embodiment of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of one form of one of the furniture module components of the present invention;

FIGS. 2 and 3 are front and rear perspective views of one form of a second module component of the present invention;

FIG. 4 is an inverted perspective view of one form of table top element of the present invention;

FIG. 5 is a perspective view of a basic assembled arrangement of the two components of FIGS. 1 through 3;

FIG. 6 is a perspective view of the components of FIGS. 1 through 3 used as a desk and chair combination;

FIGS. 7 and 8 are top plan views showing several possible arrangements of components constructed as shown in FIGS. 1 through 3;

FIG. 9 is an elevational view of a further possible arrangement of the components of FIGS. 1 through 3 for play purposes;

FIG. 10 is a perspective view showing a table employing a pair of components of the form shown in FIGS. 2 and 3 as supporting pedestals with a pair of the components of FIG. 1 employed as seat members in conjunction therewith;

FIG. 11 is an inverted perspective view of the table arrangement of FIG. 10;

FIG. 12 is a fragmentary longitudinal cross-sectional view through the table arrangement of FIGS. 10 and 11; and

FIG. 13 is a horizontal cross-sectional view approximately on the line 13—13 of FIG. 5 showing the components of FIGS. 1 through 3 in vertically interfitting relationship.

DESCRIPTION OF THE PREFERRED EMBODIMENT

One of the two principal components of the furniture module combination of the present invention is shown in FIG. 1 where it is designated generally by the reference numeral 15. This component consists of an upright rear wall 16, oblique vertical side walls 17 which are connected rigidly with the opposite side edges of the rear wall 16, and a horizontal member 18 of trapezoidal outline which serves variously as a seat or shelf member and is rigidly connected at three of its edges with rear wall 16 and side walls 17 and thus serves as a brace for these walls.

In the preferred embodiment horizontal member 18 is closer to the top edges of walls 16 and 17 than to the bottom edges thereof. This extends the variable utility of component 15, whether used alone or in combination with the other principal component of the present modular furniture combination.

For instance, as a seat member, the member 18 may be positioned to provide a lower seat surface than shown in FIG. 1 by simply turning component 15 upside down.

The other of the two principal components of the present modular furniture combination is designated generally by the reference numeral 20 and is clearly illustrated in FIGS. 2 and 3. This component is of generally the same form as component 15, comprising a rear wall 21, and side walls 22 which extend forwardly from the opposite side edges of rear wall 21 at substantially the same oblique angle as the walls 17 of component 15.

Component 20 has upper and lower horizontal trapezoidal walls 23 and 24 which are fixed rigidly within the rear and side walls and are located a short distance below the top and above the bottom, respectively, of the rear and side walls. In the preferred embodiment a basic interfitting relationship of the components 15 and 20 is achieved by proportioning their width dimensions so that the width of the forward surface of rear wall 21 is approximately equal to the width of the rear surface of rear wall 16 of component 15.

Thus component 15 may be nested or fitted within the rear and side walls of component 20, either above or below component 20, as shown for example in FIG. 5, with the walls of the two components interfitting as shown in FIG. 13. In the form shown in FIGS. 2 and 3 component 20 is provided with a fixed interior shelf 25 and a hinged door 26.

The components 15 and 20 may be used as a child's chair and desk combination as shown in FIG. 6 in which case the space below shelf 25 serves as a knee or leg space. With the components nested as in FIG. 5 the assembly may be used as a corner cabinet. In this adaptation either of the components may be lowermost and three or even more units may be thus vertically arranged, the interfitting described above and illustrated in FIG. 13 serving to make a secure and stable vertical assembly in any of these stacking arrangements.

A third component of the module combination of the present invention comprises a table top element designated generally by the reference numeral 30 and shown in inverted position in FIG. 4. As there shown, the bottom surface of table top 30 includes a plurality of sets of grooves or channels 31 through 38, each following the general contour of the upper and lower edges of the components 15 and 20 so that such edges may be assembled therein. In the case of grooves or channels 36 and 37 the medial portions of each coincide, as shown in FIG. 4.

Taking the channel 31 as representative of any of the several grooves or channels of table top 30, the three legs thereof are formed to receive the top or bottom edges of either component 15 or 20, the groove or channel being proportioned to receive the rear and side walls of either of these components.

The width of the various portions of the several grooves or channels 31 through 38 is equal to the combined width of the vertical walls of component 15, and the vertical walls of component 20. Thus the outer edge A of groove or channel 31 coincides in form to the outer configuration of the vertical walls of component 20, while the inner edge B of groove or channel 31 coincides with the inner edges of the vertical walls of component 15.

As a result of this configuration of the grooves or channels 31 through 38, either of the components 15 or 20 may be assembled into any of the grooves or channels 31 through 38 whereby a pair of either of the components 15 and 20 may be utilized as pedestals in a table construction such as is illustrated in FIGS. 10 and 11. In FIGS. 10 and 11 two components 20 form pedestals of the table structure, including top 30, and two seat components 15 may be employed therewith. However, the table pedestals may both comprise seat components 15 if desired.

Also, with the groove or channel arrangement shown in FIG. 4, the pedestal components may be set further inwardly from the opposite ends of table top 30 and, where desired, the components 15 or 20 may be used with their rear walls outwardly, thus employing any pair of the grooves 31 through 34. In the instance illustrated in FIGS. 10 and 11 the grooves 35 and 38 are being utilized.

It has been found that table top 30 when in the position shown in FIG. 4 provides an interesting play surface for small children who may move small cars or similar objects in grooves or channels.

FIGS. 7 and 8 are plan views showing arrangements of two pairs of components 15 and 20. It is to be understood that the same arrangements any many others may be employed with any combination of components 15 and 20 and these arrangements may be employed either in single or multiple tier arrangements.

FIG. 9 shows one of many arrangements in which the units may be placed by children themselves or their parents for play purposes, including climbing about and over the components.

Obviously, many modifications and variations of the present invention will occur to those skilled in this art in light of the teachings of the foregoing disclosure.

I claim:

1. In combination, a pair of interfitting furniture elements, one of said elements having a vertical rear wall, a pair of vertical side walls flaring forwardly from the opposite side edges of said rear wall, and a pair of generally horizontal trapezoidal shelf members secured at their edges to said rear and side walls, said shelf members being spaced below the upper edges and above the lower edge of said walls to form ledges, the other of said elements likewise having a vertical rear wall and side walls flaring forwardly at substantially the same angles as the side walls of said one element with the external width of its rear wall substantially the same as the internal width of the rear wall of said one element, whereby said other element seats within one of said ledges at either the top or bottom of said one element to be retained in vertically aligned relation with respect to said one element by the rear and side walls of said one element.

2. A combination according to claim 1 wherein said other elements has a trapezoidal horizontal shelf member secured at its edges to said rear and side walls to brace the same.

3. A combination according to claim 2 wherein the shelf member of said other element is intermediate its upper and lower ends to form a seat surface with said rear and side walls above said shelf forming a back rest.

4. A combination according to claim 3 wherein said shelf member is closer to one end of the rear and side walls than to the other whereby said other element is reversible to provide seat surfaces of two different heights.

5. A combination according to claim 1 wherein said one element has a door pivoted at a forward edge thereof with its front surface substantially flush the front edges of the side walls of said element.

6. A combination according to claim 1 wherein the side walls of said two elements are substantially flush at their front edges when said elements are interfitted.

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U.S. Cl. X.R.

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