

[54] **FOLD-OPEN CONVERTIBLE  
OCCUPANT-RECEIVING UNIT OF  
FURNITURE**

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[51] Int. Cl.<sup>2</sup> ..... **A47B 83/00; A47C 17/00**

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5/357; 297/456**

[56] **References Cited**

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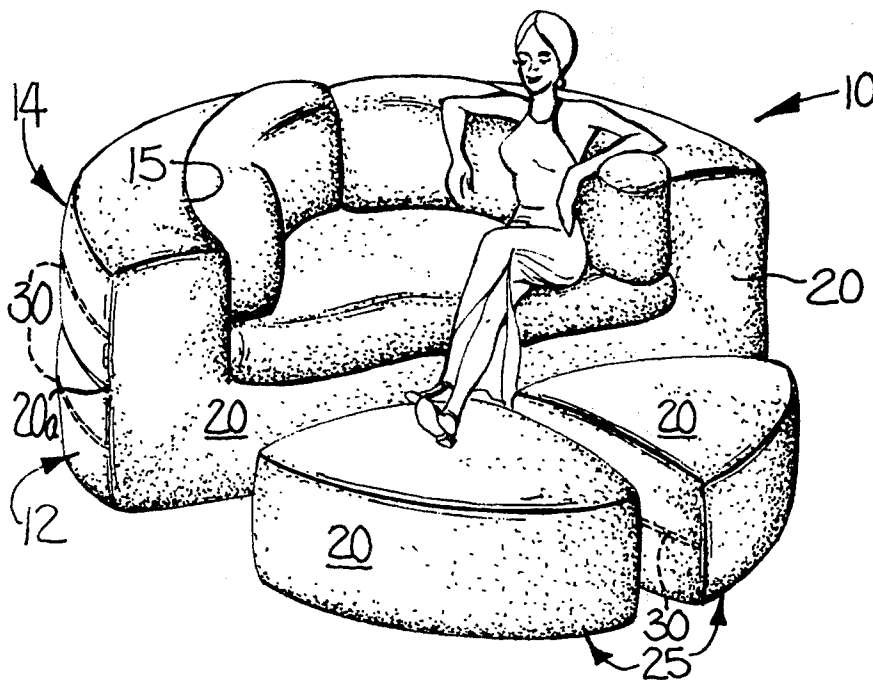
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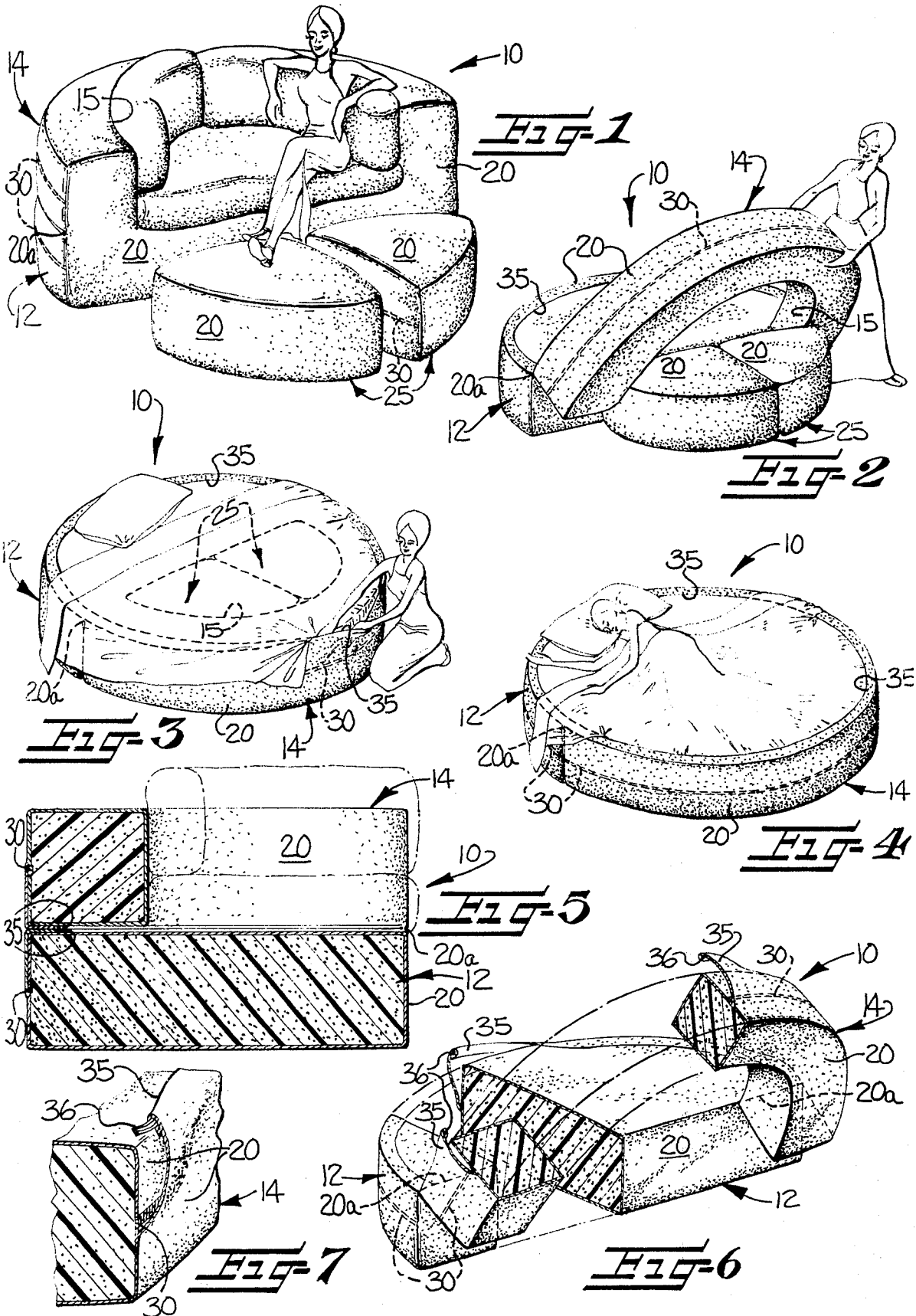
[57] **ABSTRACT**

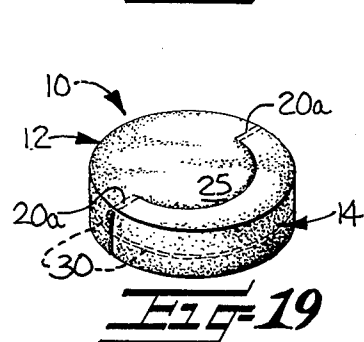
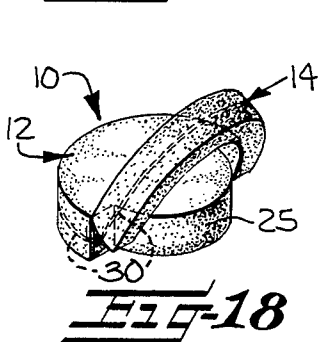
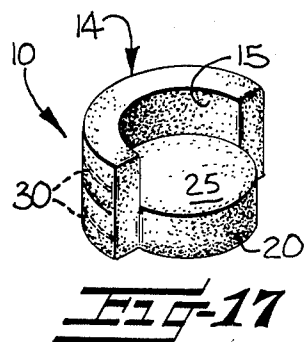
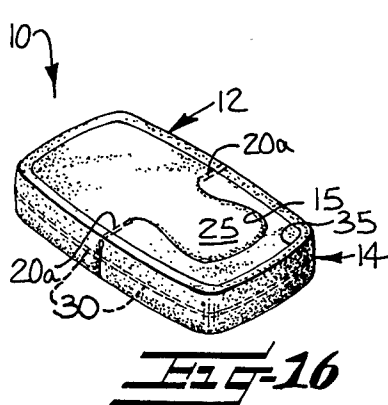
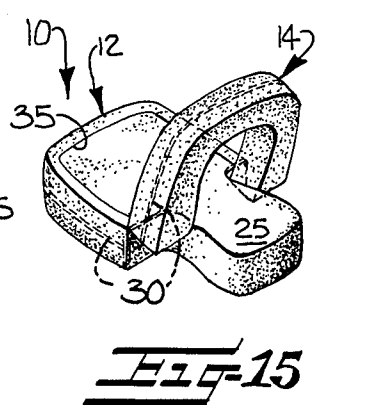
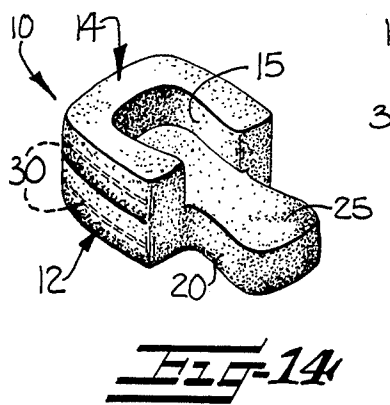
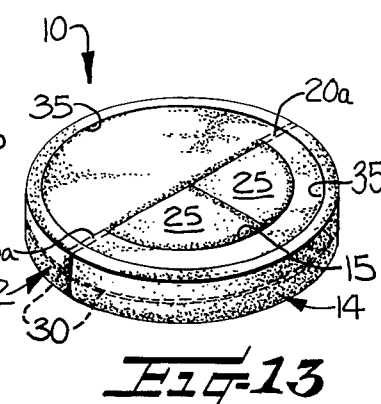
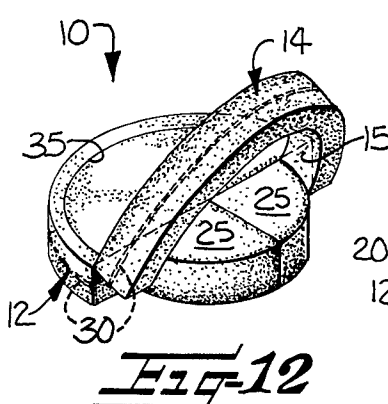
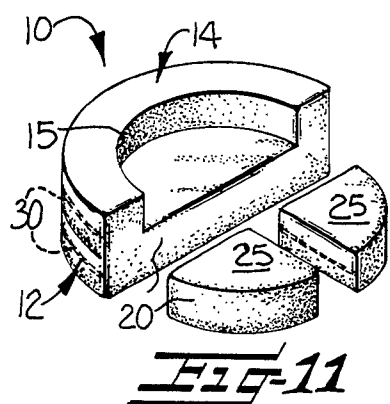
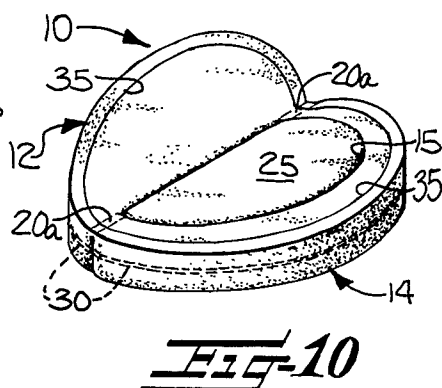
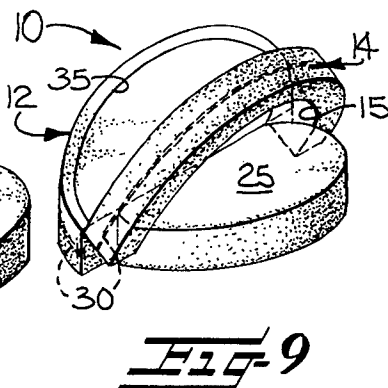
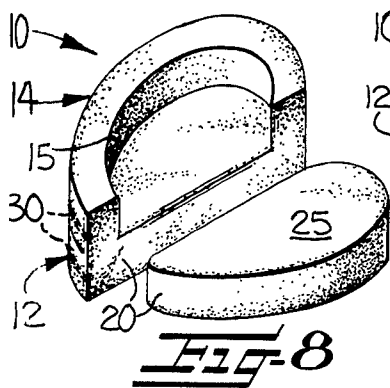
A fold-open, convertible, occupant-receiving, unit of furniture characterized by being constructed for easily converting to and from a folded-close unit of furniture with an upstanding side and back portion for use as a sofa, chair or the like and to and from a folded-open,

flat unit of furniture of a predetermined geometric shape with no upstanding portion for use as a bed, ottoman or the like, as follows. A first member, preferably a block of foam, of predetermined shape generally defining one half of the folded-open outside configuration of the unit of furniture is hinged, preferably by upholstery, to a second member, preferably a block of foam, having the same general outside configuration and shape as the first member for being generally symmetrical therewith and defining the other half of the folded-open configuration of the unit of furniture when placed in side-by-side position therewith and having a cut out therein to define a void therethrough for pivotal movement of the second member to and from a folded-close, superimposed position on top of the first member wherein the first member provides an upstanding side and back portion, the cut out in the second member provides an occupant receiving void in the second member and the portion of the first member contained within the cut out of the second member provides an occupant-receiving seat portion and to and from a folded-open position in side-by-side relation with the first member for providing a flat unit of furniture with no upstanding portions. A third member, preferably the cut out block of foam, is provided for being positioned within the cut out of the second member when the second member is in the folded-open position for filling the cut out and to be utilized as an ottoman when the unit of furniture is in the folded-close position thereof.

**18 Claims, 19 Drawing Figures**







## FOLD-OPEN CONVERTIBLE OCCUPANT-RECEIVING UNIT OF FURNITURE

### BACKGROUND OF THE INVENTION

This invention relates to a fold-open, convertible, occupant-receiving, unit of furniture which is specifically characterized by being constructed for easily converting to and from a fold-close unit of furniture with an upstanding side and back portion for use as a sofa, chair or the like and to and from a folded-open, flat unit of furniture of a predetermined geometric shape with no upstanding portions for use as a bed, ottoman or the like.

Heretofore, various constructions of convertible, occupant-receiving furniture have been proposed for converting to and from a sofa, chair, or the like to and from a bed or the like. Sofa-bed furniture units have long been popular for consumers who have limited floor space available in their dwellings and desire a unit for furniture which can function as a sofa during the daytime and as a bed at night. These previously designed sofa-beds have, for the most part, been of a heavy, cumbersome and complicated design which required considerable effort and often strength in converting the unit of furniture from a sofa to a bed and vice versa.

### SUMMARY OF THE INVENTION

Accordingly, it is the object of this invention to provide a new construction of convertible, occupant-receiving furniture units which is characterized by ease of conversion and simplicity of construction.

It is a further more specific object of this invention to provide a convertible, occupant-receiving, unit of furniture which may be converted to and from a sofa, chair or the like, to and from a bed, ottoman or the like.

By this invention, it has been found that the above objects may be accomplished by providing such a unit of furniture which is of a fold-open construction for easily converting to and from a folded-close unit of furniture with an upstanding side and back portion for use as a sofa, chair and the like and to and from a folded-open, flat unit of furniture of a predetermined geometric shape with no upstanding portions for use as a bed, ottoman or the like, as follows.

A first member, preferably a block of foam material, of predetermined shape generally defining one half of the folded-open outside configuration of the unit of furniture is provided. A second member, preferably also a block of foam material, having the same general outside configuration and shape as the first member for being generally symmetrical therewith and defining the other half of the folded-open configuration of the unit of furniture when placed in side-by-side relation therewith and having a cut out therein to define a void there-through is provided.

Means, preferably upholstery, hingedly connects the first member to the second member for pivotal movement of the second member to and from a folded-close superimposed position on top of the first member wherein the first member provides an upstanding side and back portion, the cut out in the second member provides an occupant-receiving void in the second member and the portion of the first member contained within the cut out of the second member provides an occupant-receiving seat portion and to and from a folded-open position in side-by-side relation with the first

member for providing a flat unit of furniture with no upstanding portions.

Means, preferably the cut out foam block portion from said second member, is provided for being positioned in and filling the cut out in the second member when the second member is in the folded-open position thereof to provide a generally flat continuous surface for the unit of furniture in the folded-open position thereof, and for use as an ottoman or ottomans in the unit of furniture when the first and second members are in the folded-close position thereof.

### BRIEF DESCRIPTION OF THE DRAWINGS

Some of the objects of the invention having been stated, other object will appear as the description proceeds, when taken in conjunction with the accompanying drawings, in which:

FIG. 1 is a perspective view of one form of the fold-open, convertible, occupant-receiving, unit of furniture in accordance with this invention and being in the folded-close position thereof for use as a sofa;

FIG. 2 is a perspective view of the unit of furniture of FIG. 1 illustrating the folding open thereof;

FIG. 3 is a perspective view of the unit of furniture of FIG. 1 in the folded-open position thereof for use as a bed and illustrating bedsheets being tucked into a specially designed pocket construction of the upholstery covering;

FIG. 4 is a perspective view of the furniture unit of FIG. 1 in the folded-open position thereof for use as a bed;

FIG. 5 is an elevational, cross-sectional view through the furniture unit of FIG. 1, with the ancillary pillows removed therefrom;

FIG. 6 is a cross-sectional view through the unit of furniture of FIG. 2 as it is being folded-open;

FIG. 7 is an enlarged cross-sectional detail of a portion of the unit of furniture of FIG. 1 illustrating the pocket construction of the upholstery covering;

FIGS. 8, 9 and 10 are perspective views of a specific geometric shape of a unit of furniture in accordance with this invention and which is generally heart shape in plan when in the folded-open position thereof and illustrating the unit of furniture in the folded-close position in FIG. 8 for use as a sofa, the unit of furniture as it is being folded-open in FIG. 9 and the unit of furniture in the folded-open position in FIG. 10 for use as a bed;

FIGS. 11, 12 and 13 are perspective views of a specific geometric shape of a unit of furniture in accordance with this invention and which is generally circular shape in plan when in the folded-open position thereof and illustrating the unit of furniture in the folded-close position in FIG. 8 for use as a sofa, the unit of furniture as it is being folded-open in FIG. 9 and the unit of furniture in the folded-open position in FIG. 10 for use as a bed;

FIGS. 14, 15 and 16 are perspective views of a specific geometric shape of a unit of furniture in accordance with this invention and which is generally rectangular shape in plan when in the folded-open position thereof and illustrating the unit of furniture in the folded-close position in FIG. 8 for use as a chair, the unit of furniture as it is being folded-open in FIG. 9 and the unit of furniture in the folded-open position in FIG. 10 for use as a bed; and

integral with other upholstery 20 and which extends from below the zipper 30 up and around the upper peripheral corner or edge portions of the members 12 and 14 to overlie the top surface thereof when the members 12 and 14 are positioned in the folded-open condition thereof. A piece of elastic 36 may be secured around the upper edge of the flap 35 of upholstery 20 for forming a snug pocket construction. Bedsheets may be positioned within this pocket construction, as shown in FIG. 3, for conveniently making up the unit of furniture 10 when used as a bed for sleeping by an occupant, as shown in FIG. 4.

Referring now to FIGS. 8, 9 and 10, these Figures illustrate the unit of furniture 10 in a general heart shape when viewed in plan and when opened up to the folded-open condition thereof for use as a bed, as clearly shown in FIG. 10. The construction of this heart shaped unit of furniture 10 is the same described above with respect to FIGS. 1-7 and will not be repeated herein. The third member 25 of this embodiment of the unit of furniture 10 is one piece and is separate and detached from the members 12 and 14 so as to form a manually movable member for positioning in desired locations for use as an ottoman when the unit of furniture is in the folded-close condition for use as a sofa and may be manually positioned for filling the cut out 15 in the second member 14 when the unit of furniture 10 is in the folded-open condition for use as a bed, as shown in FIG. 10.

FIGS. 11, 12 and 13 relate to the circular shaped unit of furniture 10, illustrated in FIGS. 1-4 and illustrate this unit of furniture in the various conditions for use thereof in the folded-close position for use as a sofa and the folded-open condition for use as a bed and illustrates the third member 25 in a separate and detached form and divided into two components for use as twin ottomans when the unit of furniture 10 is in the folded-close position for use as a sofa and positioned within the cut out 15 of the second member 14 when the unit of furniture 10 is in the folded-open condition thereof for use as a bed.

FIGS. 14, 15 and 16 illustrate an embodiment of the unit of furniture containing the same basic members as the previously discussed embodiments, as indicated by the common reference numerals therein, and in which the unit of furniture 10 in the folded-close condition thereof is utilized as a chair and in the folded-open condition thereof is utilized as a single bed. The third member 25 in this embodiment is integral with and forms an extension of the first member 12 in the folded-close condition of the unit of furniture 10 when used as a chair for use as an integrally extending ottoman and is used to fill the void formed by the cut out 15 of the second member 14 when the unit of furniture 10 is in the folded-open condition thereof for use as a single bed.

In FIGS. 17, 18 and 19, still another embodiment of the unit of furniture 10 is illustrated therein and which has the same or similar components as the previously described embodiments of the units of furniture 10 and have been given like reference characters. In this embodiment, the unit of furniture when in the folded-close condition thereof is utilized as a chair with an integrally extending ottoman 25 attached to the first member 12 to form an integral extension thereof. In the folded-open condition, this unit of furniture 10 may be used as an ottoman, hassock or the like and if desired, the

dimensions thereof may be large enough so that the unit of furniture may be used as a circular bed.

Thus it may be seen that this invention has provided a fold-open, convertible, occupant-receiving, unit of furniture 10 which may be easily and quickly converted to and from a folded-close unit of furniture with an upstanding side and back portion for use as a chair, sofa, lounge or the like and to and from a folded-open, flat unit of furniture of a predetermined geometric shape with no upstanding portions for use as a bed, ottoman, hassock or the like.

In the drawings and specification there has been set forth preferred embodiments of this invention and, although specific terms have been employed, they are used in a generic and descriptive sense only and not for purposes of limitation.

What is claimed is:

1. A fold-open, convertible, occupant-receiving, unit of furniture characterized by being constructed for easily converting to and from a folded-close unit of furniture with an upstanding side and back portion for use as a sofa, chair or the like and to and from a folded-open, flat unit of furniture of a predetermined geometric shape with no upstanding portions for use as a bed, ottoman or the like; said unit of furniture comprising: a first member of predetermined shape generally defining one half of the folded-open outside configuration of said unit of furniture;

a second member having the same general outside configuration and shape as said first member for being generally symmetrical therewith and defining the other half of the folded-open configuration of said unit of furniture when placed in side-by-side position therewith and having a cut out therein to define a void therethrough;

means for hingedly connecting said first member to said second member for pivotal movement of said second member to and from a folded-close, superimposed position on top of said first member wherein said first member provides an upstanding side and back portion, said cut out in said second member provides an occupant receiving void in said second member and the portion of said first member contained within said cut out of said second member provides an occupant receiving seat portion, and to and from a folded-open position in side-by-side relation with said first member for providing a flat unit of furniture with no upstanding portions; and

means for being positioned within said cut out of said second member when said second member is in the folded-open position thereof for filling the cut out to provide a generally continuous flat surface for said unit of furniture in the folded-open position thereof.

2. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 1, in which said means for being positioned within said cut out of said second member when said second member is in the folded-open position thereof comprises

a third member of the shape and configuration of said cut out in said second member for use as an ottoman in said unit of furniture when said first and second members are in the folded-close position.

3. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 2, in which said third member comprises a detached, separate member for

manual movement to desired positions when used as an ottoman in the folded-close condition of said unit of furniture and when used to fill said cut out in the folded-open condition of said unit of furniture.

4. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 2, in which said third member comprises an integral member forming a part of and an extension of said first member.

5. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 1, in which said means for being positioned within said cut out of said second member when said second member is in the folded-open position thereof comprises

a pair of separate, detached, symmetrical members which when placed in side-by-side relation are of the shape and configuration of said cut out in said second member for filling said cut out when said unit of furniture is in the folded-open position and for use as individual ottomans which may be manually placed in desired positions when said unit for furniture is in the folded-close position.

6. A folded-open convertible, occupant-receiving unit of furniture, as set forth in claim 1, in which said means for hingedly connecting said first member to said second member comprises upholstery separately covering at least a portion of said first and second members and being connected for hingedly joining said first and second members.

7. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 6, in which said upholstery covers the side surfaces of said first and second members and forms a open pocket means around the upper peripheral edge of said first and second members when in the folded-open position thereof for receiving and holding bed sheets therein.

8. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 1, in which said unit of furniture comprises a generally circular shape in plan when in the folded-open position thereof.

9. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 1, in which said unit of furniture comprises a generally heart shape in plan when in the folded-open position thereof.

10. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 1, in which said unit of furniture comprises a generally rectangular shape in plan when in the folded-open position thereof.

11. A fold-open, convertible, occupant-receiving unit of furniture, characterized by being constructed for easily converting to and from a folded-close unit of furniture with an upstanding side and back portion for use as a sofa, chair or the like and to and from a folded-open, flat unit of furniture of a predetermined geometric shape with no upstanding portions for use as a bed, ottoman or the like; said unit of furniture comprising:

a first block of foam material of predetermined shape generally defining one half of the folded-open outside configuration of said unit of furniture;

a second block of foam material having the same general outside configuration and shape as said first foam block for being generally symmetrical therewith and defining the other half of the folded-open configuration of said unit of furniture when placed in side-by-side position therewith and having a cut out therein in which a portion of the foam block is removed to define a void therethrough;

upholstery separately covering at least a portion of said first and second foam blocks and being connected for hingedly joining said first foam block to said second foam block for pivotal movement of said second foam block to and from a folded-close, superimposed position on top of said first foam block wherein said first foam block provides an upstanding side and back portion, said cut out in said second foam block provides an occupant receiving void in said second foam block and the portion of said foam block contained within said cut out of said second foam block provides an occupant-receiving seat portion, and to and from a folded-open position in side-by-side relation with said first foam block for providing a flat unit of furniture with no upstanding portion; and

a third foam block comprising the cut out portion of said second foam block and being of the shape and configuration of said cut out in said second foam block for use as an ottoman in said unit of furniture when said first and second members are in the folded-close position and for being positioned within said cut out of said second foam block when said second foam block is in the folded-open position thereof for filling the void formed thereby to provide a generally continuous flat surface for said unit of furniture in the folded-open position thereof.

12. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 11, in which said third foam block comprises a detached, separate member for manual movement to desired positions when used as an ottoman in the folded-close condition of said unit of furniture and when used to fill said cut out in the folded-open condition of said unit of furniture.

13. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 11, in which said third foam block comprises an integral part of and an extension of said first foam block.

14. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 11, in which said third foam block is divided and comprises a pair of separate, detached, symmetrical members which when placed in side-by-side relation are of the shape and configuration of said cut out in said second foam block for filling said cut out when said unit of furniture is in the folded-open position and for use as individual detached ottomans which may be manually placed in desired positions when the unit of furniture is in the folded-close position.

15. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 11, in which said upholstery covers the side surfaces of said first and second foam blocks and forms an open pocket means around the upper peripheral edge of said first and second foam blocks when in the folded-open position thereof for receiving and holding bed sheets therein.

16. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 11, in which said unit of furniture comprises a generally circular shape in plan when in the folded-open position thereof.

17. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 11, in which said unit of furniture comprises a generally heart shape in plan when in the folded-open position thereof.

18. A fold-open, convertible, occupant-receiving unit of furniture, as set forth in claim 11, in which said unit of furniture comprises a generally rectangular shape in plan when in the folded-open position thereof.

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