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Dalsgard

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[54] **FURNITURE ASSEMBLIES**

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[51] **Int. Cl.**.... **A47c 27/08,** A47c 7/14, A47c 27/18

[58] **Field of Search** ..... 297/443–445, 297/455, 456, 440, DIG. 1; 5/352, 357, 355, 348

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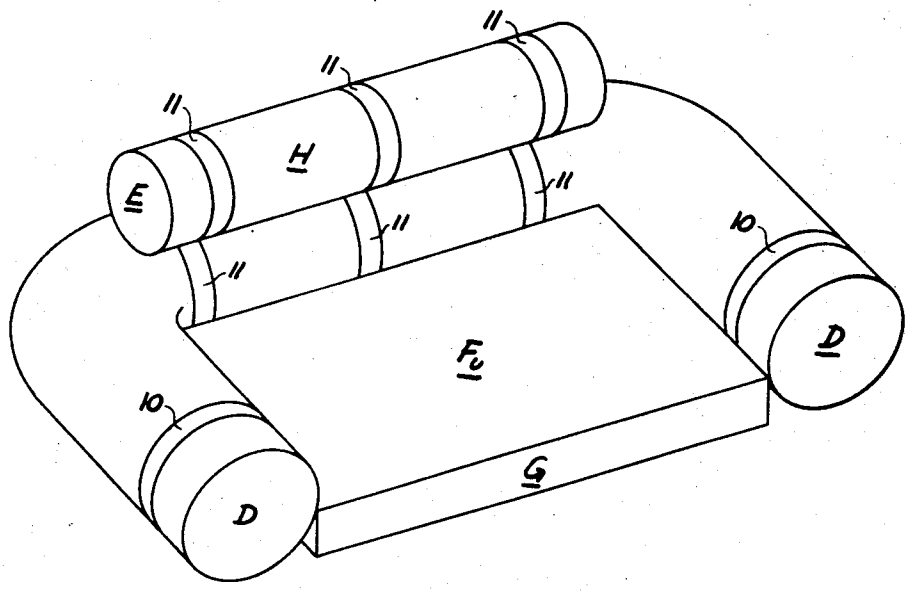
Primary Examiner—Paul R. Gilliam

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[57] **ABSTRACT**

A plurality of components made of a flat, bendable material, such as a textile or plastic material, and comprising two substantially U-shaped components, five rectangular components and two circular components assembled along their adjacent edges so as to form substantially tubular members, the cavities of which are subsequently filled with a stuffing material to form cushion members. There are three cushion members, viz. a combined, substantially U-shaped back and arm rest cushion, a seat cushion and a neck pillow. These cushion members are finally assembled to form a chair or settee by means of two pairs of straps extending from the bottom face of the seat cushion. The seat is attached to the arm rests by means of a pair of straps extending in opposite directions from one end of the seat member around the arm rests and fastened at the bottom of the seat. The neck pillow is attached to the back of the U-shaped cushion member by means of the other pair of straps extending from the back end of the seat around the back of the U-shaped cushion, embracing the neck pillow and fastened at the bottom of the seat cushion, the two parts of the straps being held together by means of a rectangular frame member inserted between the neck pillow and the back of the U-shaped cushion.

4 Claims, 8 Drawing Figures



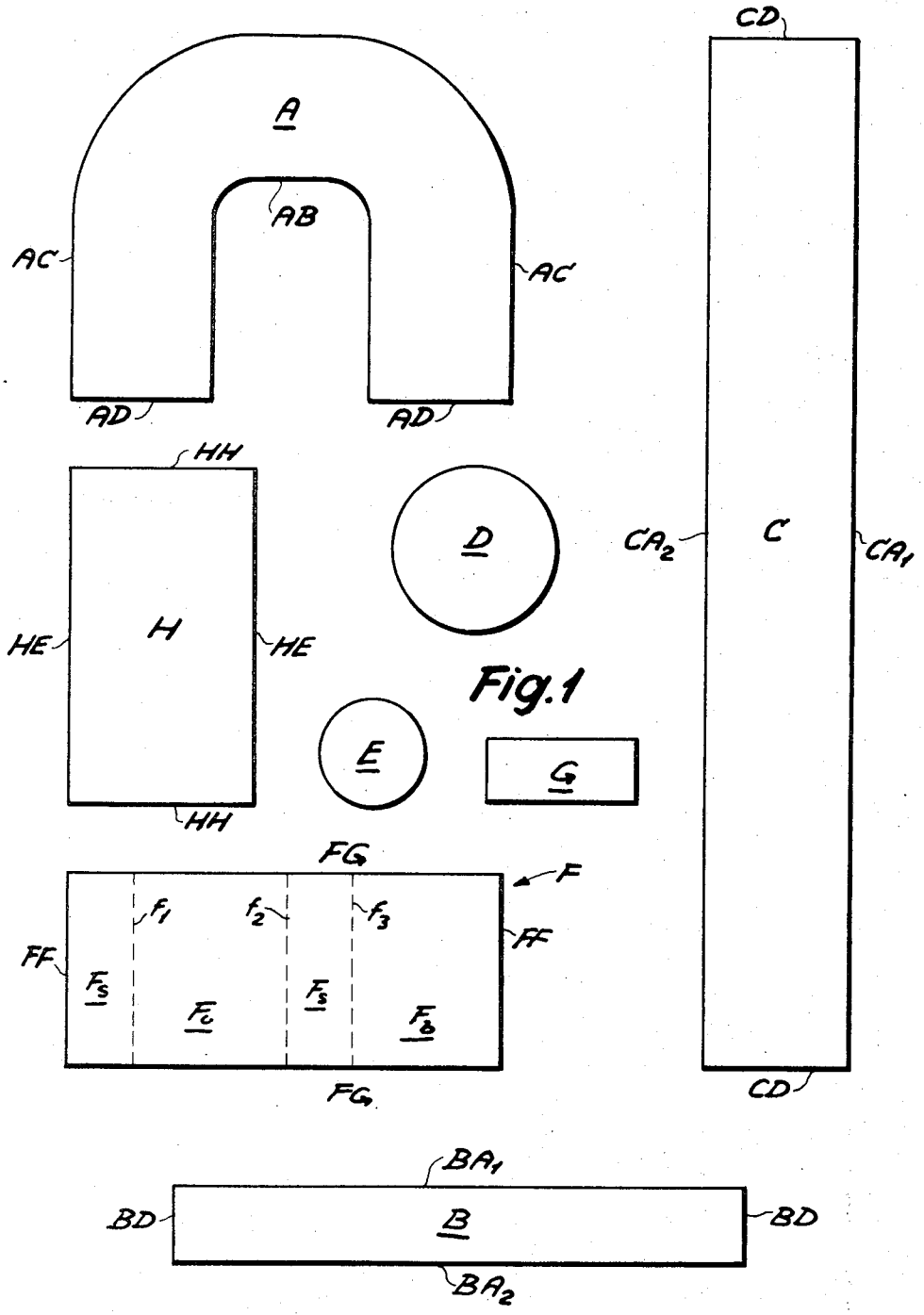

A
AB
AC
AC
AD
AD
HH
H
HE
HE
HH
D
E
G
CD
C
CA2
CA1
CD
FG
F
f1
f2
f3
FF
FF
Fa
Fb
Fc
FG
BA1
B
BD
BD
BA2

Fig. 1

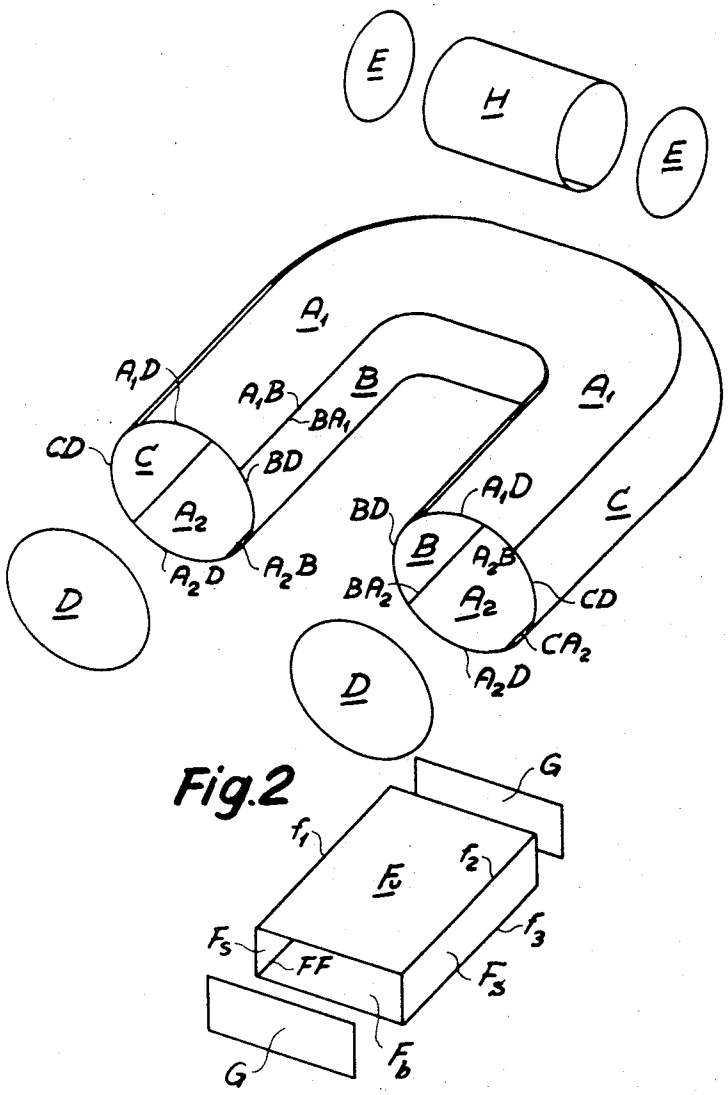

E
H
E
A1
A1D
A1B
B
BA1
A1
CD
C
BD
A2
A2B
A2D
D
BD
A1D
C
B
A2B
BA2
A2
CD
CA2
A2D
D

Fig.2

G
f1
Fu
f2
f3
Fs
FF
Fs
G
Fb

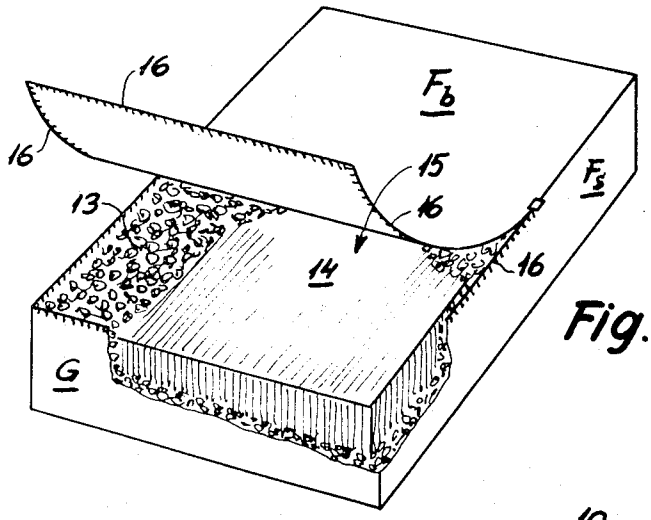


Fig.3

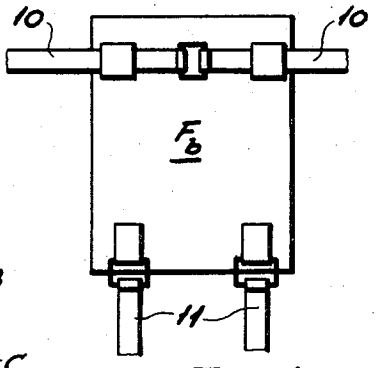


Fig.4

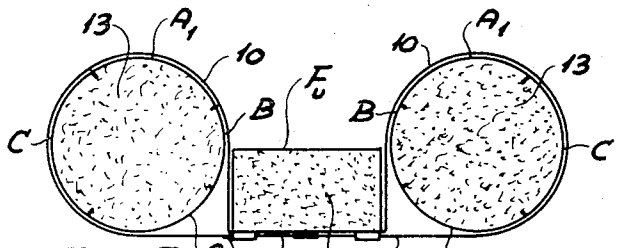


Fig.5

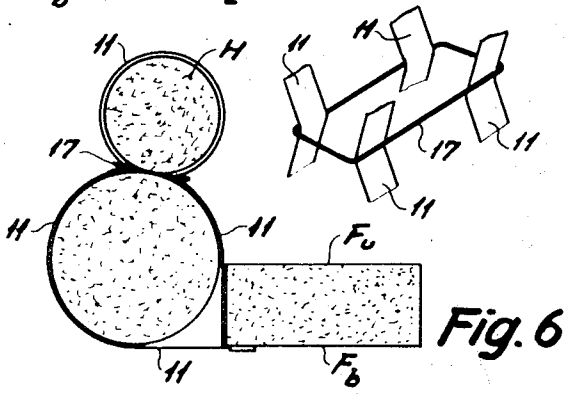


Fig.6

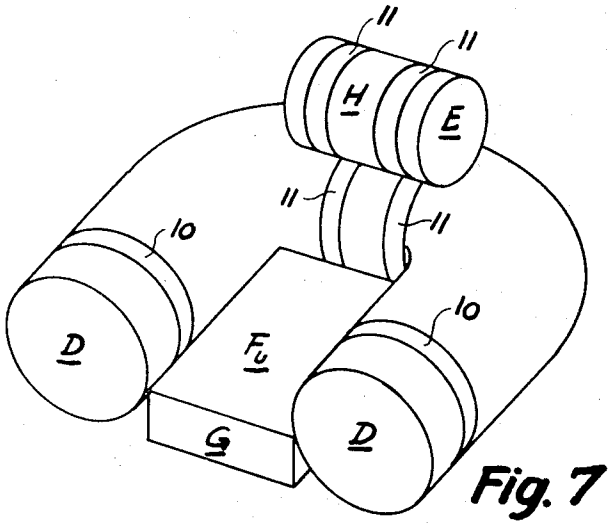


Fig. 7

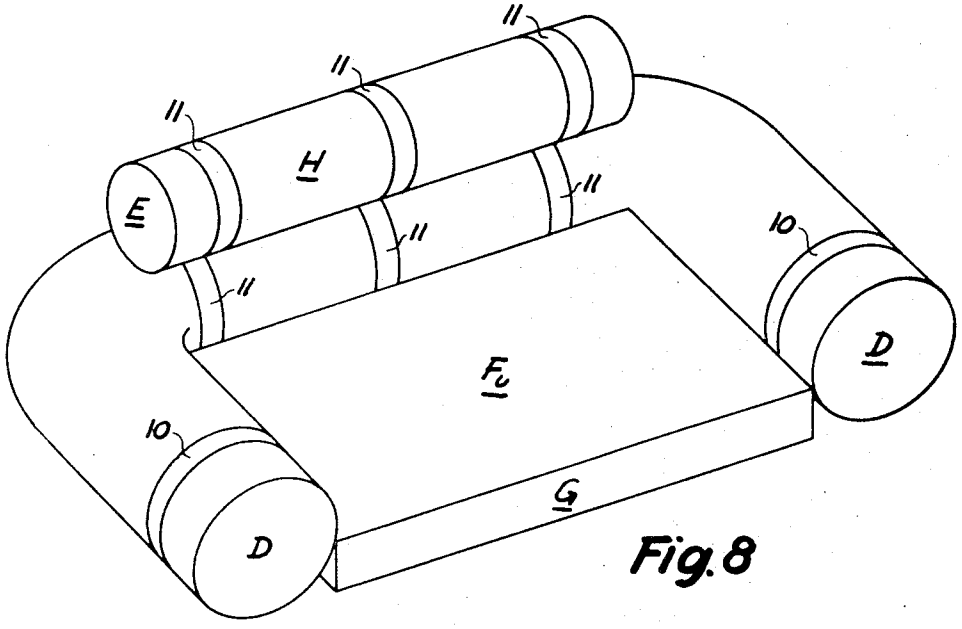


Fig. 8

FURNITURE ASSEMBLIES

This invention relates to a furniture assembly comprising a set of components designed so as to enable the user to make a variety of furniture units, such as chairs, settees, beds, etc., by converting the said components into cushion elements which are subsequently assembled to form units.

The main object of the invention is to provide simple and inexpensive means for enabling persons, who are not necssarily skilled in the art of furniture making, to build their own furniture in accordance with the do-it-yourself principle.

According to the invention, this object is achieved by providing, shaping and assembling the components described in the following description with reference to the accompanying drawings, wherein

FIG. 1 is a plan view showing a pattern comprising a set of the basic plane elements,

FIG. 2 is a perspective view showing how the basic elements of FIG. 1 are folded and assembled to form cushion members of substantially tubular shape,

FIG. 3 is a bottom view showing a cushion member provided with a slide fastener for opening the cushion when filling its cavity with the stuffing material,

FIG. 4 is a bottom view showing a seat member provided with two pairs of straps for attachment to the back and arm rests of a chair cushion,

FIG. 5 is a sectional view showing the assembly of a seat member with a pair of adjacent cushion members,

FIG. 6 is a sectional view showing the assembly of the back of a chair member with a seat member and a neck pillow,

FIGS. 7 and 8 are perspective views showing embodiments of the finished furniture units.

Referring to the drawings and, more particularly, to FIGS. 1 and 2 thereof, the pattern of FIG. 1 comprises the following figures:

- A: a substantially U-shaped combined back and arm rest element, the contour of which is defined by the edges AB, AC and AD;
- B: a rectangular inner strip element having edges BA_1, BA_2, and BD;
- C: a rectangular outer strip element having edges CA_1, CA_2 and CD;
- D: a circular element;
- E: another and smaller circular element;
- F: a rectangular seat element which by means of three folding lines *f*1, *f*2 and *f*3 is divided into two side strips Fs, an upper seat face Fu and a bottom seat face Fb. The two end edges of element F are designated FF and the part of the side edges intermediate the folding lines *f*1 and *f*2 are designated FG;
- G: a rectangular strip element having edges GFs and GFG;
- H: a rectangular pillow element having edges HH AND HE.

By means of this pattern which, for practical use, should be supplemented with figures indicating the dimensions of each element, the actual components for making a piece of furniture are cut out from a bendable material, such as a piece of textile or plastic material. For building a chair, as shown in FIG. 7, the following components are required:

Two of each of the elements A, D, E and G and one of each of the elements B, C, F and H.

These components are subsequently folded and assembled to form cushion members as illustrated in FIG. 2:

The two A-elements A_1 and A_2 forming the upper and lower part of the combined back and arm rest cushion member are assembled with the adjacent elements B, C and D as follows:

Edge A_1B is assembled with edge BA_1 of element B. Edge A_1C is assembled with edge CA_1 of element C. Edge A_2B of element A_2 is assembled with edge BA_2 of element B. Edge A_2C of element A_2 is assembled with edge CA_2 of element C. This will provide a substantially U-shaped hose member open at both ends. These ends are subsequently closed by attaching the two end members D to the edges A_1D, BD, A_2D and CD of the hose member, and the hose member is subsequently filled with a stuffing material which may preferably be a granular resilient plastic or rubber material. This material may be introduced in the cavity of the hose by opening an aperture therein and closing it after stuffing by means of a slide fastener. The assembly of the adjacent edges of the components may be made by sewing, welding or any other convenient method.

The seat member F is made by bending the rectangular element along the folding lines f_1, f_2 and f_3 and then closing the ends by joining the edges FF together. The remaining open ends are subsequently closed by means of the end strips G. The closed seat member may be filled out by introducing a pad of foam rubber or plastic **14** through an aperture **15** provided by a slide fastener **16**, as shown in FIG. **3**, and stuffing with a granular material **13** before closing the slide fastener.

As shown in FIG. **4**, the bottom face F_b of the seat member F is provided with a pair of straps **10** extending from opposite sides thereof and with another pair of straps **11** extending from the back edge thereof. These straps are used for attaching the seat member to the combined back and arm rest member and to the neck pillow H, as explained with reference to FIGS. **5** and **6**.

The element H of FIG. **1** is used for making a neck pillow, as shown in FIG. **2**, by joining the edges HH to form a tubular member which is subsequently closed at its ends along the edges HE by means of the end pieces E. The stuffing is made in the same manner as explained above.

The three cushion members thus produced, comprising the combined back and arm rest member $A_1 + B + A_2 + C + D$, the seat F and the neck pillow H are finally assembled by means of the straps **10** and **11**, as shown in FIGS. **5** and **6**.

The straps **10** extending to opposite sides from the front end of the bottom face of the seat cushion are carried around the adjacent arm rests and attached at the bottom of the seat, as shown in FIG. **5**. The straps **11** extending backwardly from the back end of the bottom of the seat cushion are similarly carried around the back portion of the combined back and arm rest cushion and over the substantially cylindrical surface of the neck pillow H, along the inner side of the back cushion and are fastened at the bottom of the seat. A substantially rectangular frame member **17** is inserted between the back member and the neck pillow for holding the two parts of the straps **11** together, thereby securing the neck pillow to the back of the chair whilst enabling

the pillow to be moved into any convenient position relatively to the back of the chair, as indicated by the arrow in FIG. **6.**

The dimensions of the components shown in FIG. **1** may be adjusted to the type and size of the furniture units. Thus, FIG. **7** shows a perpsective view of a chair made up of the components of FIG. **1,** and FIG. **8** shows a similar perspective view of a settee made of substantially the same components except that components A, B and C have been extended in the lengthwise direction.

It will be understood that, in manufacturing a piece of furniture in the manner described and illustrated, the straps or belts **10** and **11** should be placed under sufficient tension compressively to load the elastic filling in the cushion elements.

What I claim is:

1. A furniture assembly comprising a plurality of elements consisting exclusively of pieces of a flat bendable material and including the following basic elements:

a pair of substantially U-shaped elements, each having an outer and an inner perimeter and a pair of edges interconnecting said perimeters;

a rectangular inner side strip element for interconnecting the U-shaped elements by attachment thereto along the inner perimeter thereof;

a rectangular outer side strip element for interconnecting the U-shaped elements by attachment thereto along the outer perimeter thereof;

a pair of end elements adapted to close the ends of a tubular element formed by the U-shaped elements when interconnected by the inner and outer strip elements;

a rectangular element adapted to be bent and assembled along a pair of parallel edges to form a hollow seat element open at opposite ends;

a pair of rectangular elements adapted to close the open ends of said seat element by attachment to the free edges thereof;

a rectangular element adapted to be bent and assembled along a pair of opposite edges to form a tubular pillow element open at opposite ends; and

a pair of end elements adapted to close the open ends of said pillow element by attachment to the free edges thereof.

2. A furniture assembly, as defined in claim **1,** said seat element, when assembled comprising a substantially flat, box-shaped body incorporating a resilient stuffing material and having an upper face, a bottom face and four side faces, a pair of straps attached to said bottom face and extending in opposite directions therefrom adjacent one end of said body, and another pair of straps attached to said bottom face adjacent the end of said body opposite the first mentioned end and extending therefrom in a direction substantially at a right angle to the direction of the first mentioned straps.

3. An assembly according to claim **2,** wherein said assembly comprises a combined back and arm rest member composed of said pair of substantially U-shaped elements, said inner and outer side strip elements and said pair of end elements, a resilient stuffing material disposed inside said combined back and arm rest, and wherein said oppositely extending pair of straps is trained respectively around the arms of said combined member, and said another straps are trained around the back rest portion of said combined member, said straps being held under tension to compressively load the resilient stuffing material in said combined member.

4. A furniture assembly according to claim **1,** further comprising:

means coupling said pair of substantially U-shaped elements and said inner and outer side strip elements together to form a combined back and arm rest portion;

means coupling said rectangular hollow seat element and said pair of rectangular end closing elements together to form a seat portion; and

means coupling said combined back and arm rest portion, said seat portion and said pillow element together as a finished furniture assembly.

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