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Wiberg

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[54] **FURNITURE ASSEMBLY**

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[52] **U.S. Cl.** **297/440,** 248/188.1, 248/165, 297/439, 297/456

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[58] **Field of Search** 297/439–441, 297/444–446, 448, 449, 456, 461, 462; 248/188.1, 165, 150; 52/584

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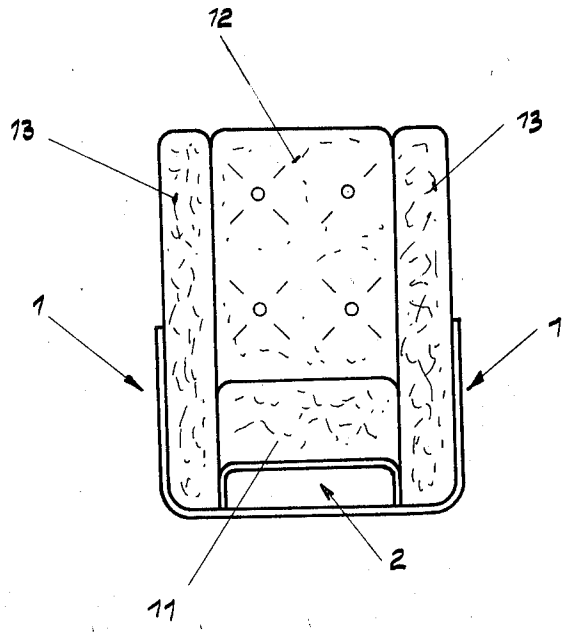
Attorney, Agent, or Firm—Karl F. Ross; Herbert Dubno

[57] **ABSTRACT**

The frame of a piece of furniture consists of at least two interconnected components, each of which comprises an approximately U-shaped yoke extending in a plane and two extensions protruding from the yoke substantially at right angles to that plane.

11 Claims, 7 Drawing Figures



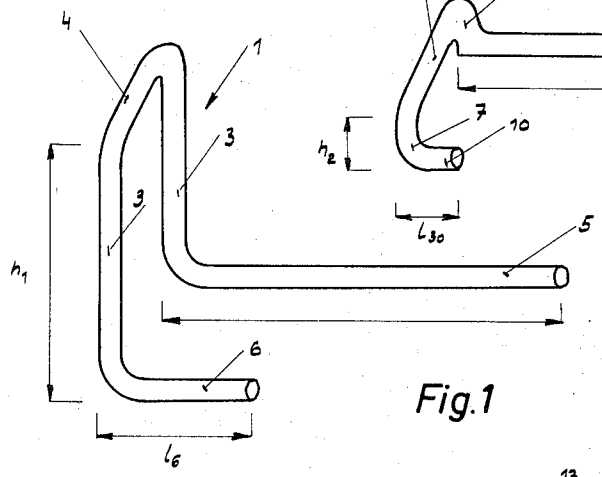


Fig.1

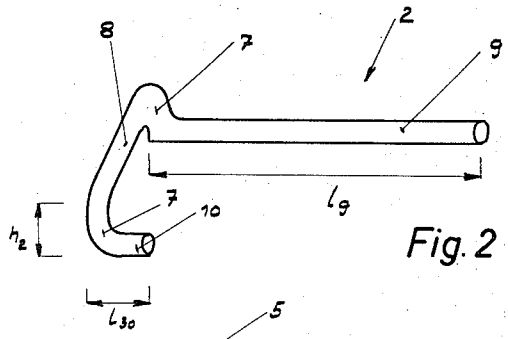


Fig.2

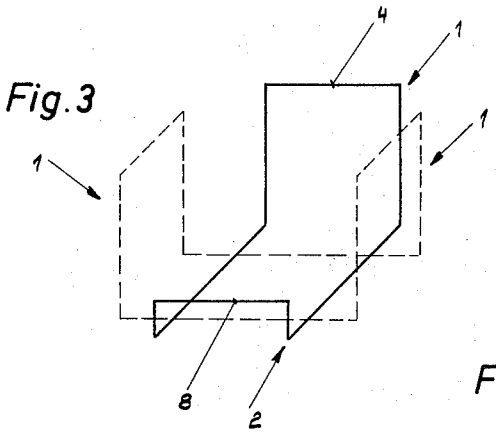


Fig.3

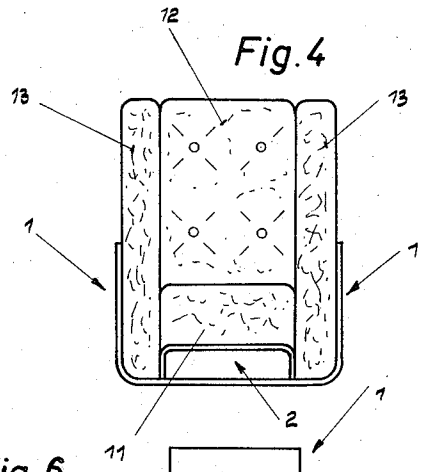


Fig.4

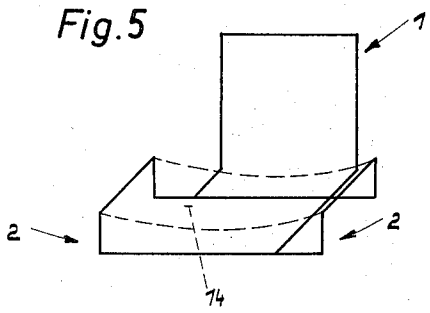


Fig.5

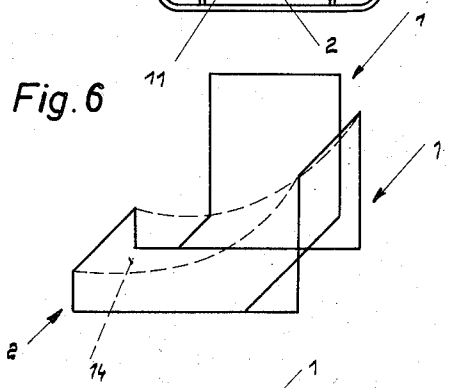


Fig.6

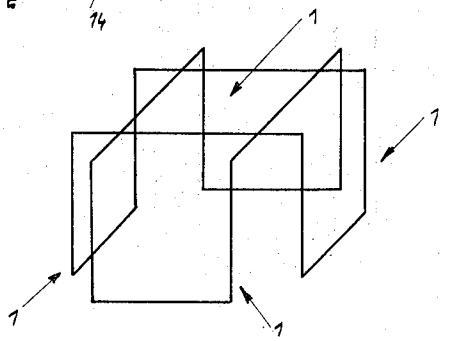


Fig.7

FURNITURE ASSEMBLY

This invention relates to a piece of furniture which comprises a frame composed of interconnected components consisting of tubes, rods, or the like. Such pieces of furniture have the advantage that they can be made in a relatively simple manner and are nevertheless very stable.

It is an object of the invention to provide components which can be assembled to form a large number of different pieces of furniture.

In accordance with my present invention, this object is accomplished in that at least two components comprise each an approximately U-shaped yoke provided with extensions integrally adjoining the free ends of the legs of the yoke substantially at right angles to its plane. As will be shown hereinafter, such components can actually be used to assemble greatly different pieces of furniture.

To provide a very stiff joint between two such components, I make the extensions of each yoke of different length so that joints between the extensions of interconnected yokes are relatively offset.

The large number of variations realizable with my improved construction of pieces of furniture can be further increased if, according to a further feature of the invention, the U-shaped yoke of one of two components is higher than the U-shaped yoke of the other component. The number of variations can be increased still further if one of two components, preferably the higher one, has two extensions which are shorter than those of the other component and the difference in length between the two extensions of one component is equal to the difference in length between the two extensions of the other component.

The invention can be applied in a very simple manner to the formation of a seat frame in which two components with vertical yokes of different height are joined so that their extensions abut and in which the taller yoke forms the backrest frame. To complement the seat, I prefer to provide at least one additional component which extends transversely to the component forming the seat frame. The transverse component or components may also comprise tall yokes constituting armrest frames.

A seat frame embodying my invention may alternatively comprise two components joined so that their extensions abut, and a covering extending between the crosspieces or bight portions of their U-shaped yokes. To form an armrest frame, a component having a tall yoke may be provided which extends transversely to the two components which carry the covering.

The components embodying my invention may also be used to form pieces of furniture other than seats. For instance, a table frame may be formed which comprises four identical components interconnected in pairs with orthogonally abutting extenions.

The invention will now be explained more fully with reference to the accompanying drawing in which:

FIGS. **1** and **2** are perspective views showing respective components of a frame structure according to my invention,

FIG. **3** is a perspective view showing diagrammatically a seat frame made from the components of FIGS. **1** and **2**,

FIG. **4** is an elevation showing a seat incorporating the frame of FIG. **3** and upholstery placed thereon;

FIGS. **5** and **6** are diagrammatic representations of other seat frames embodying my invention and

FIG. **7** shows a table frame according to my invention.

FIG. **1** shows a component **1** which is integrally bent from round-section stock to form a U-shaped yoke which extends in a vertical plane and comprises two upright legs **3** and a crosspiece **4** at the bight of the U. Parallel horizontal extensions **5** and **6** protrude from the free lower ends of legs **3** substantially at right angles to the plane of the yoke.

The component **2** shown in FIG. **2** has also an upright U-shaped yoke, lower than the yoke of component **1**, comprising two legs **7** and a crosspiece **8**. Two extensions **9** and **10** protrude from the free lower ends of legs **7** at right angles to its plane extensions **9** and **10** are respectively shorter than extensions **5** and **6**. The same difference exists between the lengths l_9 and l_{10} **110** of extensions **9** and **10** and between the lengths l_5 and l_6 of extensions **9** and **10**.

Practical experiments have shown that the following heights and lengths are desirable: Height h_1 of component **1** = 47 centimeters, height h_2 of component **2** = 15 centimeters, length l_9 is **67** centimeters, length l_6 = 23 centimeters, length l_9 = 54.5 centimeters, length l_{10} = 10.5 centimeters, spacing of legs and of their extensions **50** centimeters.

It is apparent from FIG. **3** that a seat frame can be formed in a very simple manner by assembling a component **1** and a component **2**. For this purpose it is sufficient to join the two components so that their extensions abut longitudinally. The joints may be formed, e.g., by sleeves fitted over the extensions, by connectors inserted into same, or in any other known manner which is suitable.

I have indicated by dotted lines in FIG. **3** that two additional components **1** may be provided which extend transversely to the two interconnected components **1** and **2**. The joint between the crossing extensions thereof can also be made in a very simple manner, e.g., with threaded bolts extending through the crossing extensions, although different types of joints may be used for this purpose too.

As is apparent from FIG. **4**, the frame which is diagrammatically shown in FIG. **3** can be used to carry a seat cushion **11**, a backrest cushion **12** and two armrest cushions **13**. Alternatively, the seat and rest surfaces could be formed by a covering extending between the crosspieces **4** and **8** as in the embodiments which will now be described with reference to FIGS. **5** and **6**.

According to FIG. **5**, two components **2** are assembled so that their extensions abut longitudinally and a component **1** extending transversely to these components **2** forms a backrest frame. The seating surface may be formed by a covering **14**, draped over the bight portions of components **2**, on which a cushion can be placed. It will be noted that the leg extensions of component **1** differ in length by a distance equal to the spacing of the extensions of the two other components **2** and thus terminate at mutually offset junctions with the longitudinally interconnected extensions of the latter components, all these extensions lying in a common horizontal plane.

In the embodiment shown in FIG. **6**, one of the shallow components **2** of FIG. **5** is replaced by a tall component **1** so that an armrest is provided on one side. A multiple seat may be formed, e.g., by a central frame

...king frames of FIG. 6 at ...ponent 1 being disposed on the ...se and on the left in the other. The frame ...G. 3 can obviously also be used for such a combination.

FIG. 7 shows an assembly which comprises four components 1 are arranged in crossing pairs with ... nally abutting extensions so that ... formed. If only two components ... and are rotated ... frame ...

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4. A structural frame as defined in claim ... said first extensions lie at right ... tensions and differ in ... said second ...