



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 149 546 A2**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:

31.10.2001 Bulletin 2001/44

(51) Int Cl.7: **A47C 3/00, A47C 5/00**

(21) Application number: **01109442.2**

(22) Date of filing: **24.04.2001**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Lanza, Giuseppe Dr.**
16125 Genova (GE) (IT)

(74) Representative: **Ferrarotti, Giovanni, Ing.,**
c/o Studio di Consulenza Tecnica
Via L. Lanfranchi no. 5/10 sc.sin
16121 Genova (IT)

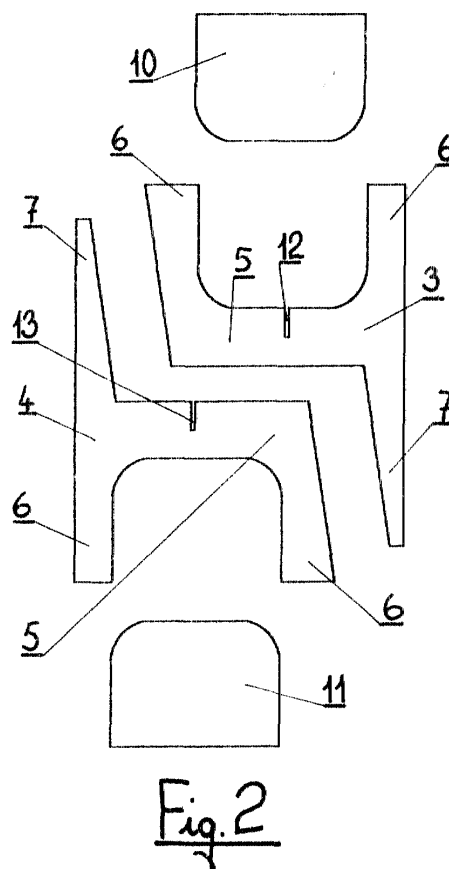
(30) Priority: **26.04.2000 IT GE000015 U**

(71) Applicant: **Lanza, Giuseppe Dr.**
16125 Genova (GE) (IT)

(54) **Chair obtained by assembling pieces cut out of a plane sheet**

(57) A chair obtained out of a square shaped plane sheet (1)

- by a first symmetrical central cut (2) dividing the two basic component parts (3, 4), each consisting of a horizontal crosspiece (5), a pair of legs (6), and a back support (7),
- subsequently by a second and a third cut (8, 9) running between the chair legs (6), so as to obtain the seat (10), and the back board (11),
- finally by two shorter cuts (12, 13), respectively made into the lower center section and the upper center section of the two crosspieces (5) belonging to the basic component parts (3, 4), whereby the chair is obtained by cross intersecting the two shorter cuts (12, 13) of the two crosspieces (5), and by fixing the seat (10), and the back board (11) with suitable joining means (14), respectively on top of the crosspieces (5), and against the back supports (7).



EP 1 149 546 A2

Description

[0001] Standard chairs are known as consisting of four legs, a sitting plane and a back plane.

[0002] Such chairs are normally obtained by assembling the various component parts, each one having been prepared separately prior to assembly. Chair manufacturing is therefore involving high costs nowadays, even by using mass production techniques, poor material and no finishing.

[0003] A further problem is the storage of such chairs, a lot of room being required to store and transport them, specially when they are to be placed in conference rooms, which often happen to be multipurpose premises.

[0004] The aim of the present invention is to foresee a chair obtained by merely cutting its component parts out of a plane sheet, so that it can be very easily assembled and disassembled.

[0005] The chair in question can easily be stored in very little space at the factory itself owing to the fact that its flat component parts require very little room when not assembled.

[0006] The assembling sequence is so easy that the chair can be assembled straight on the spot, and equally easily disassembled and stored in very little storage space wherever required.

[0007] According to this invention, the chair is obtained by cutting its component parts out of a squared plane sheet made of any suitable material such as wood, plywood, metal, plastic etc. of any size and thickness.

[0008] The plane sheet is cut out in such a way as to form two equal component parts, each one in the shape of two legs connected by a crosspiece and a support for the back board.

[0009] Two identical component parts are drawn forming the seat and the back board. A shorter cut is made into both the equal component parts forming legs, one cut is made into the upper center section of a crosspiece connecting the two legs, and the other into the lower center section of the crosspiece connecting the other two legs.

[0010] The aforementioned two component parts forming the two pairs of legs and the back supports are to be cross assembled by mutually intersecting the two shorter cuts at a square angle.

[0011] The two other identical component parts, meant as seat and back board are then to be fixed on top of the two crossed crosspieces and against the back supports.

[0012] The various component parts, especially the seat and back board, are to be fixed to each other by any suitable joining means, such as screws, bolt screws, rivets, etc..

[0013] The above described invention is illustrated by a manufactured specimen complying to the attached drawings:

Fig. 1 - Top view of the squared plane sheet on top of which are drawn the component parts to be cut out.

Fig. 2 - Exploded view of the component parts forming the chair.

Fig. 3 - Sequence of the separate component parts shown in Fig. 2.

Fig. 4 - Perspective front view of the assembled chair.

Fig. 5 - Perspective back view of the assembled chair.

Fig. 6 - Perspective side view of the assembled chair.

[0014] In relation to the above mentioned drawings, Fig. 1 shows a top view of the squared plane sheet 1 out of which the chair described in this invention shall be cut out. The plane sheet may be made of any suitable material. It can either be a square or a rectangle shape.

[0015] The material shall be suitably rigid such as wood, plywood, plastic, hard rubber, metal, etc..

[0016] By suitable cutting of such plane sheet 1, the component parts obtained are ready to be assembled in a chair, as shown hereunder.

[0017] Plane sheet 1 shall be cut along pattern lines 2,8,9.

[0018] The first cut 2 to be made is symmetrical and runs in the middle of the plane sheet and is made to separate the first two component parts 3 and 4, each one forming the horizontal crosspiece 5, the two pairs of legs 6 and the support 7 for the back board.

[0019] The second cut and the third cut 8, 9, running between the legs 6 of the first two component parts 3, 4, enable the component parts 10, 11, to be separated and be used respectively as seat and back board.

[0020] According to this invention, one of the aforementioned component parts 3, 4, has a shorter cut 12 made into the lower central section of the crosspiece 5, whilst the twin component part has the shorter cut 13 made into the upper central section of the crosspiece 5.

[0021] The separate component parts obtained after cutting are illustrated in Fig. 2 and 3. Such component parts can be easily stored and transported at very low cost.

[0022] According to this invention, the aforesaid component parts 3,4,10,11, are assembled by cross intersecting the two shorter cuts 12, 13, to each other, and by fixing the seat 10 on top of the crossed crosspieces 5, and the back board 11 against the supports 7.

[0023] For a stable assembly of the component parts any suitable joining means 14 can be used, such as screws, bolt screws, rivets, etc..

[0024] Figures 4,5,6 show the chair forming the object of this invention in its perspective front view, back view and side view respectively.

[0025] The chair described above can be cut out of a plane squared sheet as shown in the drawings.

[0026] Such plane sheet can be also a rectangle,

which means that a broader seat can be obtained, say in the shape of a sofa.

[0027] A further advantage of the aforescribed chair is in that it can be very easily disassembled and reassembled, which enables a very quick placing of seats in pit for instance and eventually be in a position to take advantage of narrow storage room for the seats.

Claims

1. A chair obtained by assembling its component parts after cutting them out of a plane sheet, **characterized by** the use of a plane sheet (1) to be square shaped and to undergo the following tooling:
 - a first symmetrical cut (2) made in the middle of the sheet (1) enabling to separate the first two basic component parts (3,4) each consisting of one horizontal crosspiece (5), one pair of legs (6) and one support (7) for the back board, a second and a third cut (8, 9) running between the chair legs (6), by which the seat (10) and the back board (11) are cut away from the aforesaid first component parts,
 - a further shorter cut (12) is made into the lower center section of the crosspiece (5) belonging to one basic component part (3), whilst another similar cut (13) is made into the upper center section of the crosspiece (5) belonging to the twin basic component part (4),
 - cross assembly of the two basic component parts (3, 4) by intersecting the two cuts (12, 13), respectively of both the crosspieces (5),
 - fixing of seat (10) by means of suitable joining means (14) on top of the crosspieces (5) belonging to the first basic component parts (3, 4),
 - fixing of the back board (11) by means of suitable joining means (14) against the back supports (7) belonging to the basic component parts (3, 4), in such a way that the chair may be easily built as concerns its component parts, and the same time be easily disassembled wherever required, one of its main features being easy assembly and easy storage.
2. A chair according to claim 1, **characterized by** the use of a plane sheet (1), out of which its component parts are cut, consisting of suitably rigid material, such as wood, plywood, hard rubber, or metal.
3. A chair according to claim 1, a chair **characterized by** the fact that the plane sheet (1) may be either a square or a rectangle, in order to obtain a selected range of chairs and sofas.

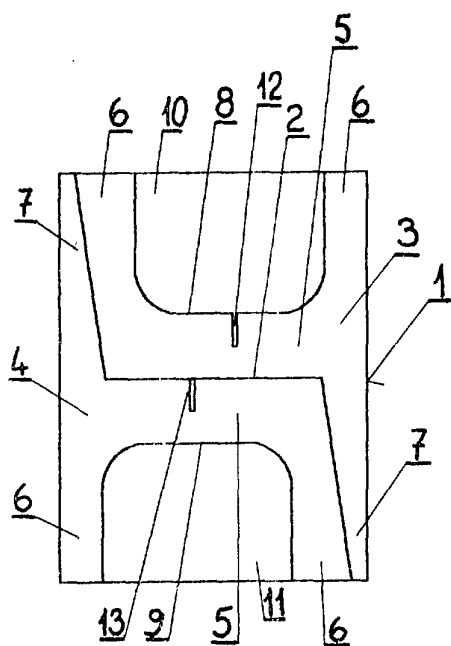


Fig. 1

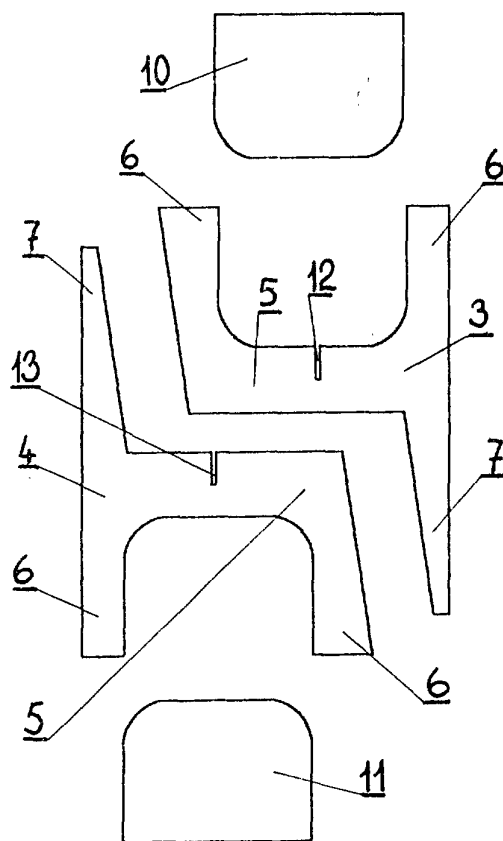


Fig. 2

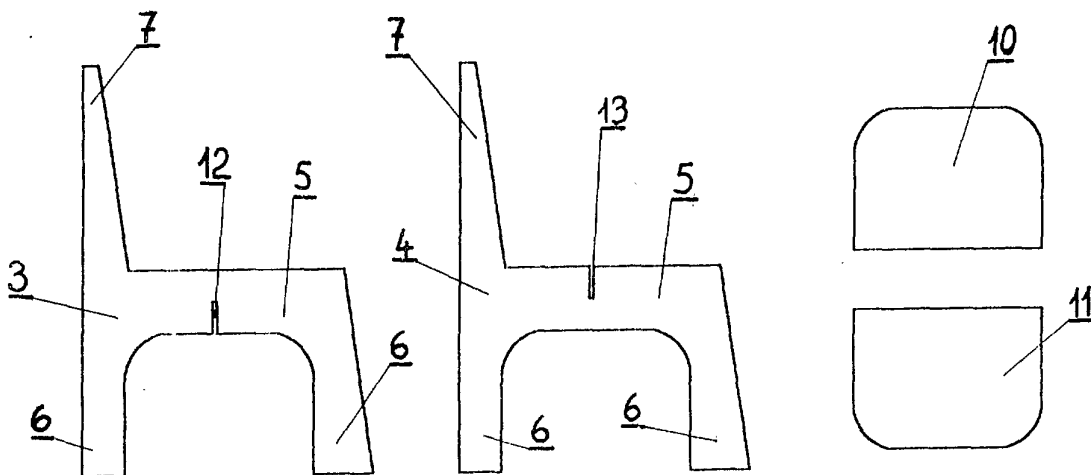


Fig. 3

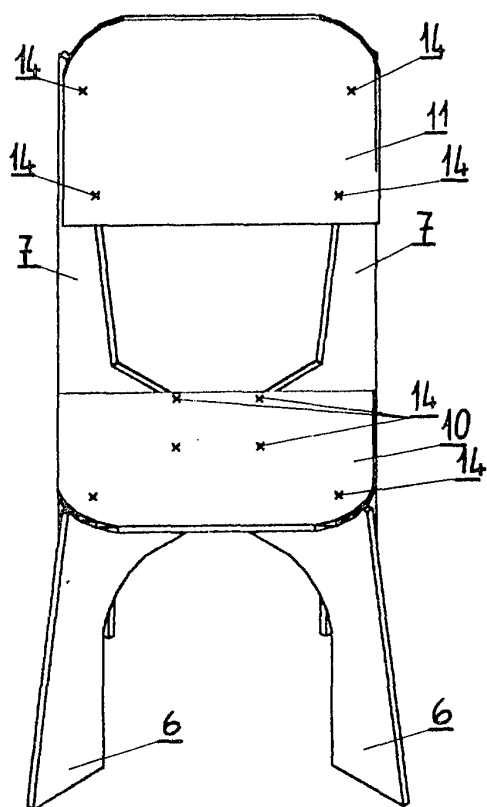


Fig. 4

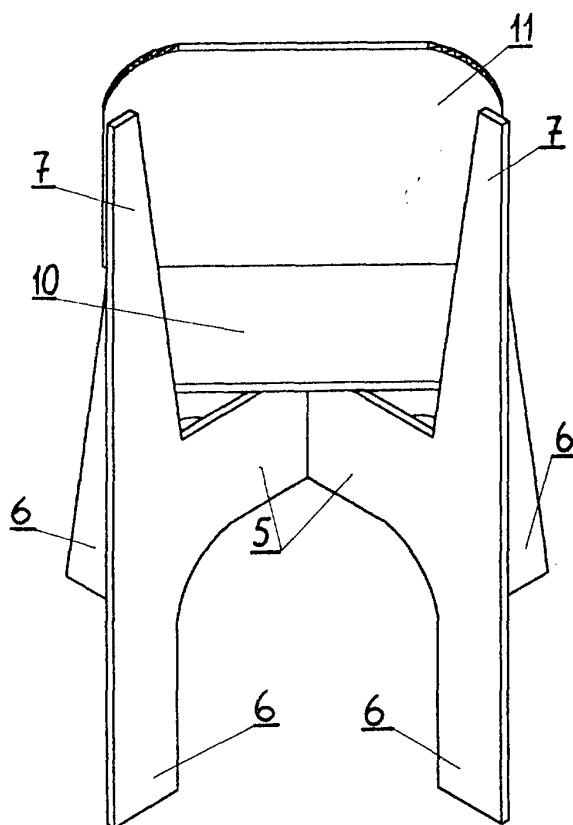


Fig. 5

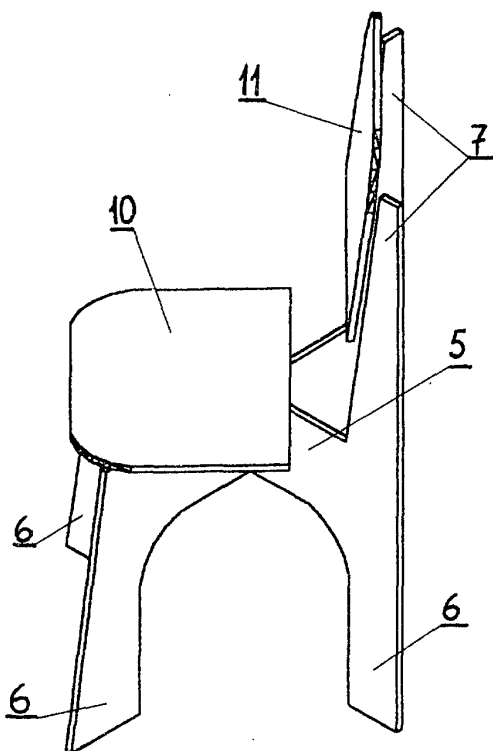


Fig. 6