



(11)

**EP 2 087 814 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:  
**12.08.2009 Bulletin 2009/33**

(51) Int Cl.:  
**A47C 31/11** (2006.01)

(21) Application number: **08425072.9**

(22) Date of filing: **07.02.2008**

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR  
 HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT  
 RO SE SI SK TR**  
 Designated Extension States:  
**AL BA MK RS**

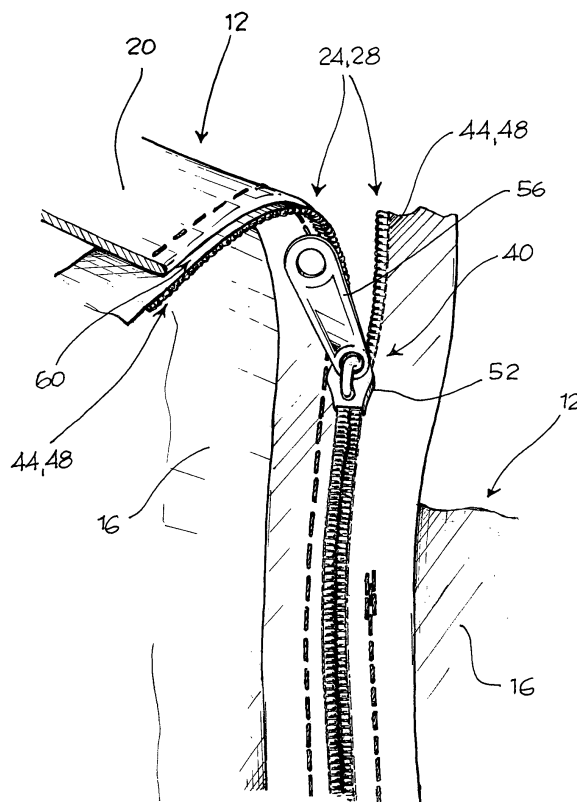
**(72) Inventor: Feltrin, Claudio**  
**31030 Dosson di Casier (Treviso) (IT)**

(74) Representative: **Pulieri, Gianluca Antonio et al**  
**Jacobacci & Partners S.p.A.**  
**Via Berchet 9**  
**35131 Padova (IT)**

(71) Applicant: **Arper S.p.A.**  
**31050 Monastier di Treviso (Prov. of Treviso) (IT)**

(54) **Method for covering a furnishing element and relative furnishing element**

(57) A method for covering a furnishing element (4) and a relative furnishing element (4). The method consists in applying a covering element (12) provided with hinge means (40) wherein said hinge means (40) are applied on the covering element (12) in an inverted manner, that is, with the cursor (52) directly facing the element to be coated. Opposite the cursor (52), the coating (12) comprises covering tapes (60) that hide the hinge means (40) from the outside and prevent the teeth (48) of the hinge means (40) from becoming entangled in clothes, dust, hair and the like.



*Fig. 1*

## Description

**[0001]** The present invention relates to a method for covering a furnishing element and a relative furnishing element.

**[0002]** In the field of furnishing it is known to make furnishing elements, such as sofas, tables, chairs, stools and the like, comprising a frame or body of the furnishing element which is then covered with a covering element. Covering elements may be made of various materials, for example fabric and/or leather.

**[0003]** Said covering elements comprise at least two separate edges at an opening; in this way it is possible to open the covering element and fit it onto the furnishing element.

**[0004]** After having covered the furnishing element, the edges are closed. The edges may be closed directly by sewing. In this way, however, it is not possible to proceed with the removal of the covering for example for washing the same. Moreover, sewing the edges is difficult and very expensive since it cannot be automated but must be carried out manually.

**[0005]** It is also known to close the edges by a zip fastener provided with a cursor with relevant actuating tab. However, the hinge is exposed and fabric threads, clothes, hair, duct and so one could become entangled in the teeth thereof.

**[0006]** It is also known to use closing means like snap fasteners and/or Velcro®. Such systems do not ensure a good closing of the edges; moreover, Velcro becomes easily entangled with fabric and dust, whereas besides being exposed, the buttons do not ensure the closing on the full extension of the edges.

**[0007]** The problem of the present invention is to provide a covering method and a relative furnishing element which should solve the disadvantages mentioned with reference to the prior art.

**[0008]** Such disadvantages are solved by a covering method in accordance with claim 1 and by a furnishing element in accordance with claim 20.

**[0009]** Other embodiments of the present invention are described in the subsequent claims.

**[0010]** Further features and the advantages of the present invention will appear more clearly from the following description of preferred non-limiting embodiments thereof, wherein:

**[0011]** figure 1 shows a perspective view of a detail of a covering element according to the present invention;

**[0012]** figure 2 shows a perspective exploded view of a covering element according to the present invention, suitable for covering a chair;

**[0013]** figures 3-4 show a view of the covering element of figure 2 according to a possible embodiment version;

**[0014]** figures 5-6 show views of consecutive assembly steps of the element of figure 2;

**[0015]** figures 7-8 show finishing steps of the assembly of the element of figure 2;

**[0016]** figures 9-10 show views of assembly steps of

the covering element of figure 2 on a relative furnishing element;

**[0017]** figures 11-12 show views of a further covering element according to the present invention;

**[0018]** figures 13-15 show views of consecutive assembly steps of the covering element of figures 11-12 on a relative furnishing element.

**[0019]** With reference to the above figures, reference numeral 4 generically denotes a furnishing element, such as a chair, a sofa, an armchair, a stool and the like.

**[0020]** The furnishing element 4 comprises an element body or frame 8 and a covering element 12 of said body 8.

**[0021]** The covering element 12 comprises a first surface 16 directly facing the element body 8 and a second surface 20, opposite the first surface 16, so as to be visible from outside body 8.

**[0022]** In other words, the first surface 16 is suitable for being placed in direct contact with body 8; thus, in a covering configuration, the first surface 16 is not visible from outside the furnishing element 4.

**[0023]** The second surface 20, following the covering of the furnishing element 4, is visible from the outside; thus, decorative elements may for example be reported on the second surface 20 or the second surface 20 may be subject to surface finishing treatments suitable for improving the aesthetic appearance of the furnishing element 4 covered thereby.

**[0024]** The covering element 12 may be for example fabric or preferably leather.

**[0025]** According to an embodiment, the covering element 12 comprises at least two portions or edges 24, 28 operatively connected to one another by hinge closing means 40.

**[0026]** According to an embodiment, the hinge closing means 40 are associated to edges 24, 28 of the covering element 12 by sewing and/or gluing (figure 1).

**[0027]** The hinge means 40 comprise a pair of chains 44, each having a plurality of teeth 48 associable jointwise to each other, for example in known manner.

**[0028]** Each chain 44 is associated to a respective portion or edge 24, 28 so as to allow the relative coupling thereof.

**[0029]** Chains 44 are coupled to each other by the sliding action of a cursor provided with a relevant actuating tab 56 (figure 1).

**[0030]** Advantageously, the hinge means 40 are associated to edges 24, 28 in an inverted manner, so that tab 56 of cursor 52 faces the side of the first surface 16 and of the associable element body 8 in a covering configuration.

**[0031]** In other words, cursor 52, in a covering configuration, is arranged between the element body 8 and the first surface 16 and therefore is not visible from the outside.

**[0032]** Preferably, the hinge means 40 comprise a pair of tapes 60, arranged opposite tab 56, relative to chains 44, so as to cover and hide chains 44 in a closed configuration of the hinge means 40; thus, hinges 60 are visible

from the outside, that is, on the side of the second surface 20 of the covering element 12 (figure 1).

**[0033]** According to an embodiment, said covering tapes 60 are associated to the hinge means 40 on the side of the second surface 20, by sewing and/or gluing.

**[0034]** According to a possible embodiment, the hinge means 40, after having been closed by the relevant cursor 52, which actuates the engagement of chains 44, are deprived of the same and of the relevant tab 56; the closing action of the ends of the hinge means is preferably obtained by gluing and/or welding of ends 64 of chains 44 of the hinge means 40 (figure 7). Said ends of the hinge means 40, following the welding, may be sheared so as to end at the welding and/or gluing points (figure 8).

**[0035]** According to a possible embodiment version of the present invention, at least a portion of the first surface 16 of the covering element 12 is glued to the element body 8. An adhesive layer 68 may for example be associated to the first surface 16 of the covering element 12 and/or directly on the element body 8.

**[0036]** The adhesive layer 68 may for example be covered by a covering sheet 74 that is removed before attaching the covering 122 to the furnishing element 4.

**[0037]** The method for covering a furnishing element according to the present invention shall now be described.

**[0038]** The method for covering a furnishing element at first comprises the step of arranging the covering element 12 so as to be fitted on the furnishing element. The covering element may be for example fabric or leather.

**[0039]** In particular, the covering element 12 comprises at least two portions or edges 24, 28 separate from each other, so as to allow opening at least partly the covering element to fit it on the relevant furnishing element 4.

**[0040]** The method further comprises the step of associating each edge 24, 28 to hinge coupling means 40, comprising at least one chain 44 provided with teeth 48 suitable for engaging with one another.

**[0041]** A chain 44 is then associated to a cursor 52 suitable for allowing the engagement of teeth 48 and provided with an actuating tab 56.

**[0042]** Preferably, a covering tape 60 is associated to each edge 24, 28, arranged opposite the actuating tab 56 relative to chains 44. The covering tape 60 coats chains 44 opposite tab 56.

**[0043]** Said covering tapes 60 are associated to the hinge means 40 on the side of the second surface 20, for example by sewing and/or gluing.

**[0044]** Advantageously, the hinge coupling means 40 are applied to edges 24, 28 of the covering element 12 so as to arrange tab 56 on the side of the first surface 16 and the covering tape 60 on the side of the second surface 20 (figure 1).

**[0045]** The hinge coupling means 40 are associated to edges 24, 28 of the covering element 12 by sewing and/or gluing.

**[0046]** According to a possible embodiment, the cov-

ering element 12 is then partly closed.

**[0047]** Said partial closing step comprises the step of placing edges 24, 28 of the covering element 12 side by side and closing them by hinge means 40 actuating the cursor on the side of the first surface 16.

**[0048]** For example, the covering element 12, may be at least partly counter-shaped relative to the furnishing element 4 so as to facilitate the covering of the furnishing element.

**[0049]** Preferably, following the closure of the covering element, by the hinge means 40, the covering element is at least partly closed bag-wise, exhibiting at least one opening 70 suitable for allowing the insertion of said furnishing element 4 on a portion.

**[0050]** The covering method comprises the step of fitting the covering element 12 on the furnishing element 4, on the side of opening 70, in a closed configuration of the hinge means 40, moving the first surface 16 in contact with the furnishing element 4.

**[0051]** According to a possible embodiment, after closing the hinge means 40, it is possible to proceed with the removal of cursor 52, with the relevant actuating tab 56. Preferably, following the removal of cursor 52, ends of chains 44 of the hinge means 40 are glued and/or welded so as to ensure the closure of edges 24, 28 (figure 7).

**[0052]** After having closed bag-wise the covering element, said covering element is put or fitted onto the furnishing element 4.

**[0053]** According to a possible embodiment, a gluing step is carried out between at least one portion of the first surface 16 of the covering element 12 and the furnishing element 4. For example, gluing means may be associated, such as an adhesive layer 68, directly on the first surface 16; preferably the adhesive layer 68 is covered by a sheet 74 that is removed before fitting the covering on the furnishing.

**[0054]** It is also possible to associate the adhesive layer directly on frame 8 of furnishing 4, suitably covered by sheet 74 that is removed before inserting covering 12.

**[0055]** An example of covering of a furnishing element such as a chair 80 is described below; such example should not be deemed as exhaustive, but is given only for the purpose of providing an example of one of the various ways of applying the present invention to a furnishing element.

**[0056]** Chair 80 to be covered comprises a back 84, a seat 88, two back legs 90, arranged at the sides of back 84 and two front legs 92, arranged opposite back 84.

**[0057]** The covering element 12 comprises a first covering element 96, suitable for covering back 84 and a second covering element 100, suitable for covering seat 88. Preferably, said first covering element 96 comprises two halves 104' (figure 2), counter-shaped relative to a profile of the back, each carrying, at said profile, the hinge means 40. Each of said halves 104' comprises the hinge means 40, with the respective chains 44, cursor 52, the respective covering tapes 60 arranged on the side of the second surface 20.

**[0058]** Preferably, at least one of said halves 104' of the first covering element 96 comprises a flap 108 which after the insertion on back 84, is turned on a bottom side 110 of seat 88.

**[0059]** After having closed bag-wise the two halves 104' of the first covering element 96, so as to determine an insertion opening 70, element 12 is inserted by introducing the insertion opening 70 on a top end 114 of back 84, opposite the relevant seat 88.

**[0060]** If the first covering element 96 and/or back 84 are provided with an adhesive layer 74, before fitting covering 96 on back 84, the covering sheet 74 is removed.

**[0061]** Preferably, the first covering element 96 comprises elongated portions 118, substantially counter-shaped relative to the back legs 90 of chair 80. Said elongated portions 118 are open so as to be fitted on the back legs following the insertion of the first covering element 96 on back 84.

**[0062]** The elongated portions 118 are closed on the back legs 90 for example by sewing and/or gluing.

**[0063]** After having covered back 84 and the back legs 90, the insertion of the second covering element 100 on seat 88 is prepared.

**[0064]** Also the second covering element 100 comprises two halves 104", counter-shaped relative to a profile of seat 88, each carrying, at said profile, the hinge means 40.

**[0065]** Preferably, at least one of said halves 104" of the second covering element 96 comprises a flap 108 which after the insertion on seat 88, is turned on a bottom side 110 of seat 88.

**[0066]** After having closed bag-wise the second covering element 100, the same is inserted by introducing the insertion opening 70 on a front end 124 of seat 88, opposite the relevant back 84.

**[0067]** Preferably, the second covering element 100 comprises elongated portions 118, substantially counter-shaped relative to the front legs 92 of chair 80. Said elongated portions 118 preferably closed tube-wise by hinge means 40 so as to be fitted directly on the front legs 92 following the insertion of the second covering element 100 on seat 88.

**[0068]** Also for the second covering element 100, after having closed the hinge means 40, a bag structure is obtained, suitable for being fitted directly on seat 88 on the side of a front end 124 of seat 88, opposite the relevant back 84 and adjacent the front legs 92. Preferably, before the insertion, cursor 52 of the hinge means 40 is removed and ends 64 of chains 44 are welded and/or glued.

**[0069]** According to a possible embodiment, before moving the second element 100 in abutment on seat 88, the covering sheet 74, for example arranged directly on seat 88, is removed (figure 13).

**[0070]** After having inserted the second covering element 100 on the side of the front legs 92 (figure 12), element 100 is folded on the seat so as to move the first surface 16 of the second covering element in contact with

the seat itself (figures 13, 14).

**[0071]** Finally, flaps 108 of the second element are folded on the bottom side 110 of seat 88.

**[0072]** As can be appreciated from the description, the covering method and the furnishing element of the present invention allow overcoming the disadvantages of the prior art.

**[0073]** In particular, the arrangement of the closing means allows hiding the sight of the hinge teeth from the outside.

**[0074]** In this way, moreover, the risk of the same teeth becoming entangled in fabric, dirt, duct, is prevented.

**[0075]** Moreover, the hinge closing means ensure a safe and resistant closure of the covering edges.

**[0076]** Moreover, unlike some solutions of the prior art that envisage the positioning of the hinges in hidden positions, for example on the backs of armchairs and sofas at legs or bottom surfaces facing the floor, the furnishing elements according to the present invention may envisage the positioning of the hinge means in any position. In this way it is possible to facilitate the covering operations, especially in the case of furnishing elements having complex geometries, or more simply it is possible to envisage new design solutions.

**[0077]** Thanks to the fact that the covering tapes are arranged opposite the tab, the same tapes are well-adhering to the chains, so as to perfectly hide the presence of hinge means.

**[0078]** A man skilled in the art may make several changes and adjustments to the covering methods and to the furnishing elements described above in order to meet specific and incidental needs, all falling within the scope of protection defined in the following claims.

## Claims

1. Method for covering a furnishing element (4), comprising the steps of

- arranging a covering element (12) for the furnishing element (4), said covering element (12) comprising a first surface (16) suitable for interfacing with a body (8) of said furnishing element (4) and a second surface (20), opposite said first surface (16), so as to be visible from the outside, in a covering configuration of the furnishing element (4), the covering element (12) comprising at least two portions of edges (24, 28) separate from each other,

- associating each edge (24, 28) to hinge closing means (40), comprising at least one chain (44) provided with teeth (48), a cursor (52) suitable for allowing the engagement of said teeth (48) and provided with an actuating tab (56), and at least one covering tape (60) arranged opposite the tab (56) relative to the chains (44), at the second surface (20),

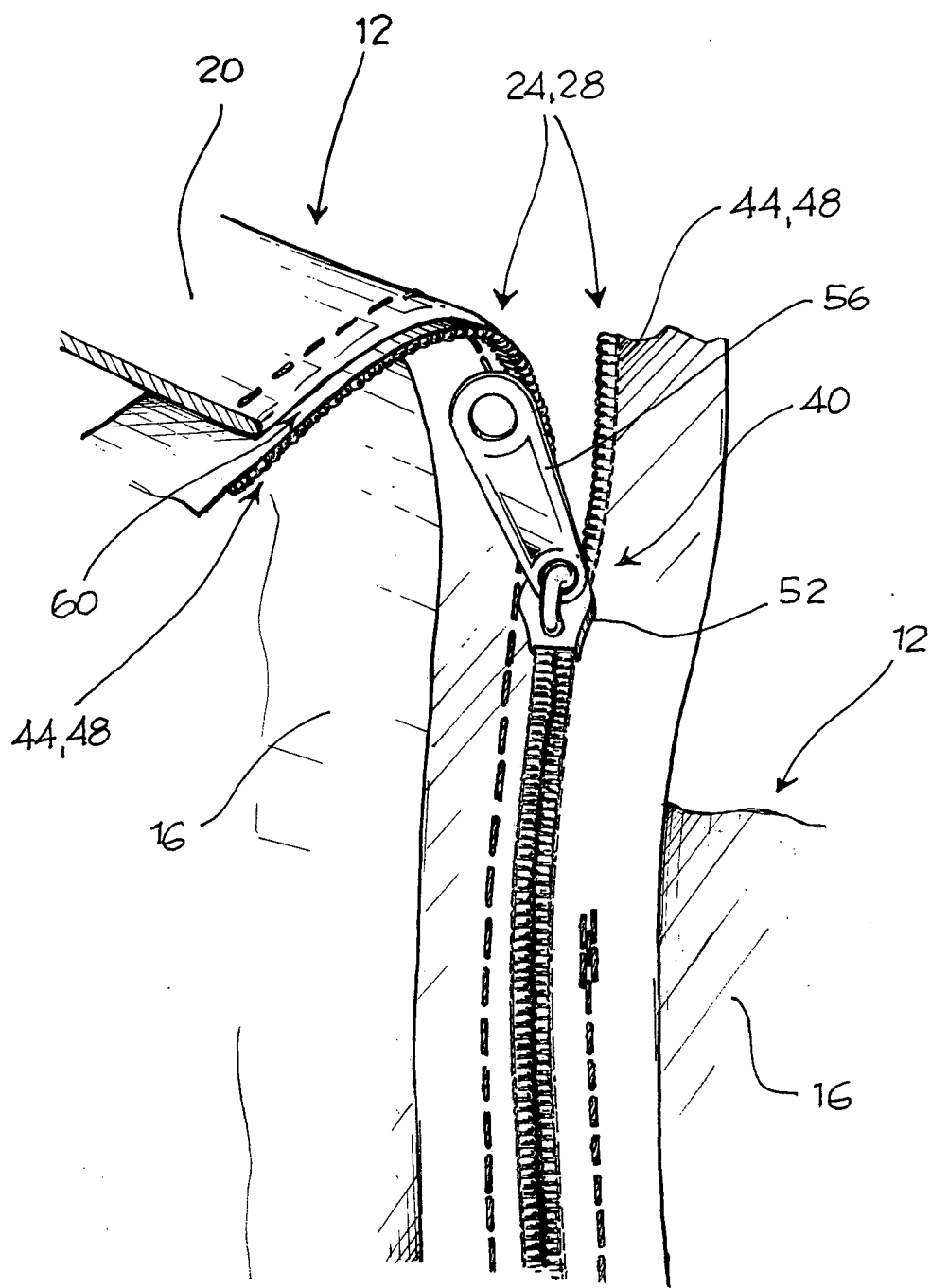
- wherein the method further comprises the steps of
- associating the hinge coupling means (40) to the edges (24, 28) of the covering element (12) so as to arrange the tab (56) on the side of the first surface (16) and the covering tape (60) on the side of the second surface (20),
  - closing on one another the edges (24, 28) of the covering element (12) actuating the cursor (52) on the side of the first surface (16) and of the furnishing element (4), so as to obtain a covering element partly closed bag-wise and provided with at least one insertion opening (70) suitable for allowing the insertion of said furnishing element on a portion,
  - fitting the covering element (12) on the furnishing element (4), on the side of said insertion opening (70), in a closed configuration of said hinge means (40), moving the first surface (16) in contact with the body (8) of the furnishing element (4).
2. Method according to claim 1, comprising the step of proceeding to the removal of the cursor (52) and of the relevant tab (56) following the closing of the hinge means (40).
  3. Method according to claim 1 or 2, comprising the step of gluing and/or welding ends (64) of the chains (44) of the hinge means (40).
  4. Method according to any one of the previous claims, comprising the step of gluing between at least one portion of the first surface (16) of the covering element (12) and the body (8) of the furnishing element (4).
  5. Method according to any one of the previous claims, wherein the covering element (12) is of fabric or leather.
  6. Method according to any one of the previous claims, wherein the step of arranging a covering element (12) for the furnishing element (4) comprises the step of associating an adhesive layer (68) on the first surface (16) of the covering element (4) and/or on the body (8) of the furnishing element (4).
  7. Method according to any one of the previous claims, wherein said hinge closing means (40) are associated to the edges (24, 28) of the covering element (12) by sewing and/or gluing.
  8. Method according to any one of the previous claims, wherein said covering tapes (60) are associated to the hinge means (40) on the side of the second surface (20), by sewing and/or gluing.
  9. Method according to any one of the previous claims, wherein the furnishing element is a chair (80) provided with a back (84), a seat (88), front legs (92) and back legs (90).
  10. Method according to claim 9, comprising the steps of arranging a first covering element (96), suitable for covering the back (84) of said chair (80), said first covering element (96) comprising two halves (104') counter-shaped relative to a profile of the back (84), each carrying, at said profile, the hinge means (40).
  11. Method according to claim 10, wherein the step of closing the hinge means (40) allows obtaining a bag structure provided with an insertion opening (70) suitable for being fitted directly on the back (84) on the side of a top end (114) of the back (84), opposite the relevant seat (88).
  12. Method according to claims 10 or 11, comprising the step of associating an adhesive layer (68) on the first surface (16) of the first covering element (96) and/or on the back (84) of the furnishing element (4) so as to obtain the gluing of the first covering element (100) to the back (84).
  13. Method according to claim 10, 11 or 12, wherein the step of arranging the first covering element (96), comprises the step of providing elongated portions (118) at least partly counter-shaped relative to the back legs (90) of the chair (80), said elongated portions being open on one side.
  14. Method according to claim 13, wherein after having fitted the first covering element (96) on the back (84), the elongated portions (118) are closed by sewing and/or gluing.
  15. Method according to any one of claims 10 to 14, comprising the steps of arranging a second covering element (100), suitable for covering the seat (88) of said chair (80), said second covering element (100) comprising two halves (104'') counter-shaped relative to a profile of the back, each carrying, at said profile, the hinge means (40).
  16. Method according to any one of claims 10 to 15, wherein the step of closing the hinge means (40) allows obtaining a bag structure provided with at least one insertion opening (70) suitable for being fitted directly on the seat (84) on the side of a front end (124) of the seat back (88).
  17. Method according to claim 15 or 16, wherein the step of arranging the second covering element comprises the step of providing elongated portions (118) at least partly counter-shaped relative to the front legs (92), said elongated portions being closing by the hinge

means (40) so as to form closed tubular structures that can be fitted on said front chairs (92).

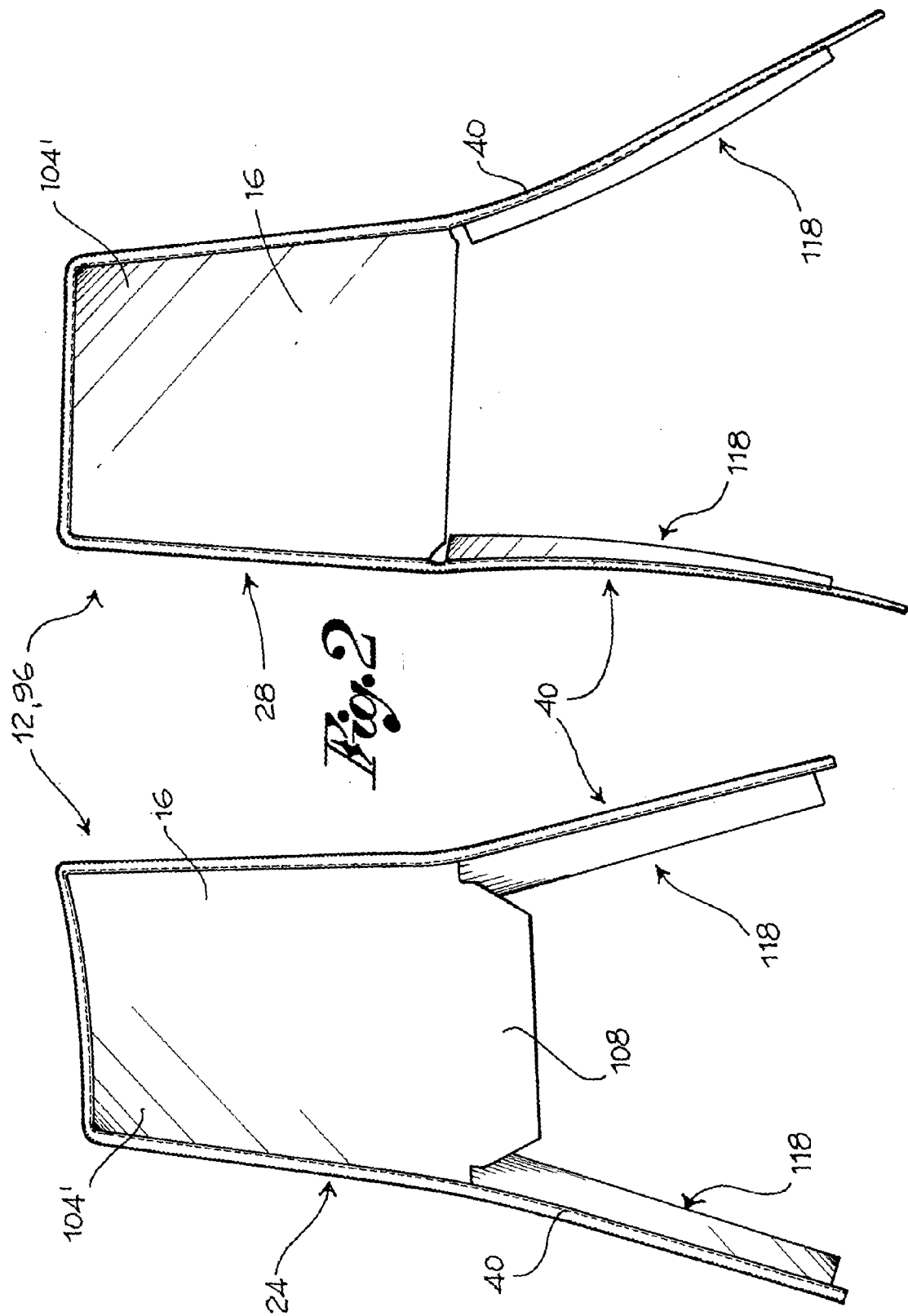
18. Method according to any one of claims 10 to 17, comprising the step of associating an adhesive layer (68) on the first surface (16) of the second covering element (100) and/or on the seat (88) of the furnishing element (4) so as to obtain the gluing of the second covering element (100) to the seat (84). 5
19. Method according to any one of claims 15 to 18, comprising the step of turning flaps (108) of the second covering element (100) on a bottom side (110) of the seat (88), opposite a seating surface. 10
20. Furnishing element (4), such as a chair, an armchair, a sofa, a stool and the like, comprising an element body (8), a covering element (12) of said body (8) having a first surface (16) directly facing the element body (8) and a second surface (20), opposite the first surface (16), so as to be visible from outside the body (8), the covering element (12) comprising at least two portions or edges (24, 28) operatively connected to one another by hinge closing means (40), the hinge means (40) comprising a pair of chains (44), comprising a plurality of teeth (48) associable joint-wise to each other, each chain (44) being associated to a respective portion or edge (24, 28), said chains (44) being coupled to each other by the sliding action of a cursor (52) provided with a relevant actuating tab (56), the hinge means (40) being associated to the edges (24, 28) in an inverted manner, so that the tab (56) of the cursor (52) faces the side of the first surface (16) and of the element body (8), the hinge means (40) comprise a pair of covering tapes (60), arranged opposite the tab (56), relative to the chains (44), so as to cover and hide the chains (44) in a closed configuration of the hinge means (40), the tapes (60) being visible from the outside, that is, on the side of the second surface (20) of the covering element (12). 15 20 25 30 35 40
21. Furnishing element (4) according to claim 20, wherein the hinge means (40) are deprived of the cursor (52) and of the relevant tab (56), and are closed by end gluing and/or welding (64) of the chains (44) of the hinge means (40). 45 50
22. Furnishing element (4) according to claim 20 or 21, wherein at least one portion of the first surface (16) of the covering element (12) is glued to the element body (8). 55
23. Furnishing element (4) according to any one of claims 20 to 22, wherein the covering element (12) is of fabric or leather.

24. Furnishing element according to any one of claims 20 to 23, wherein said hinge closing means (40) are associated to the edges (24, 28) of the covering element (12) by sewing and/or gluing.

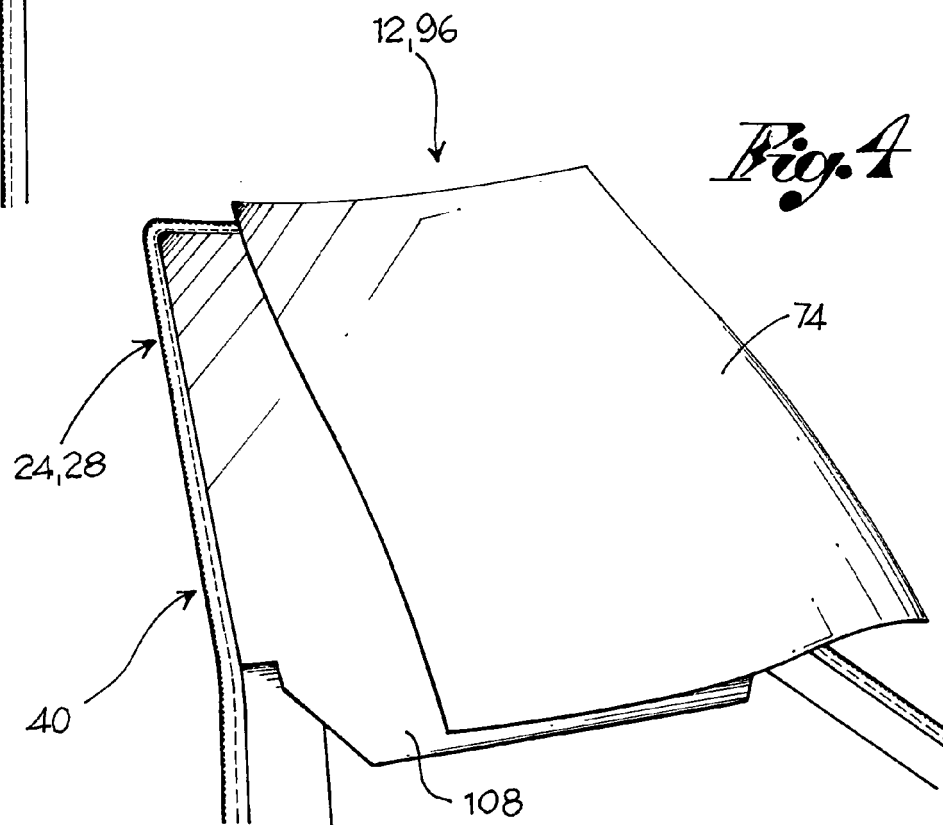
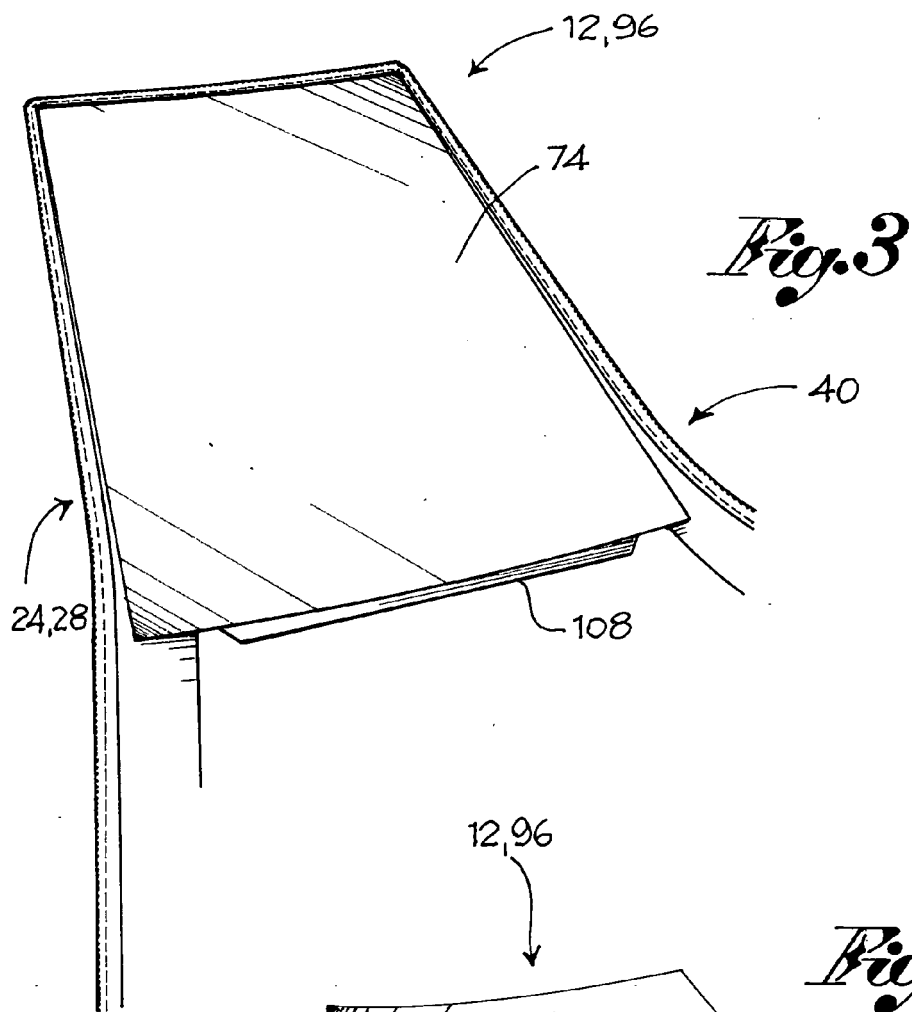
25. Furnishing element (4) according to any one of claims 20 to 24, wherein said covering tapes (60) are associated to the hinge means (40) on the side of the second surface (20), by sewing and/or gluing.

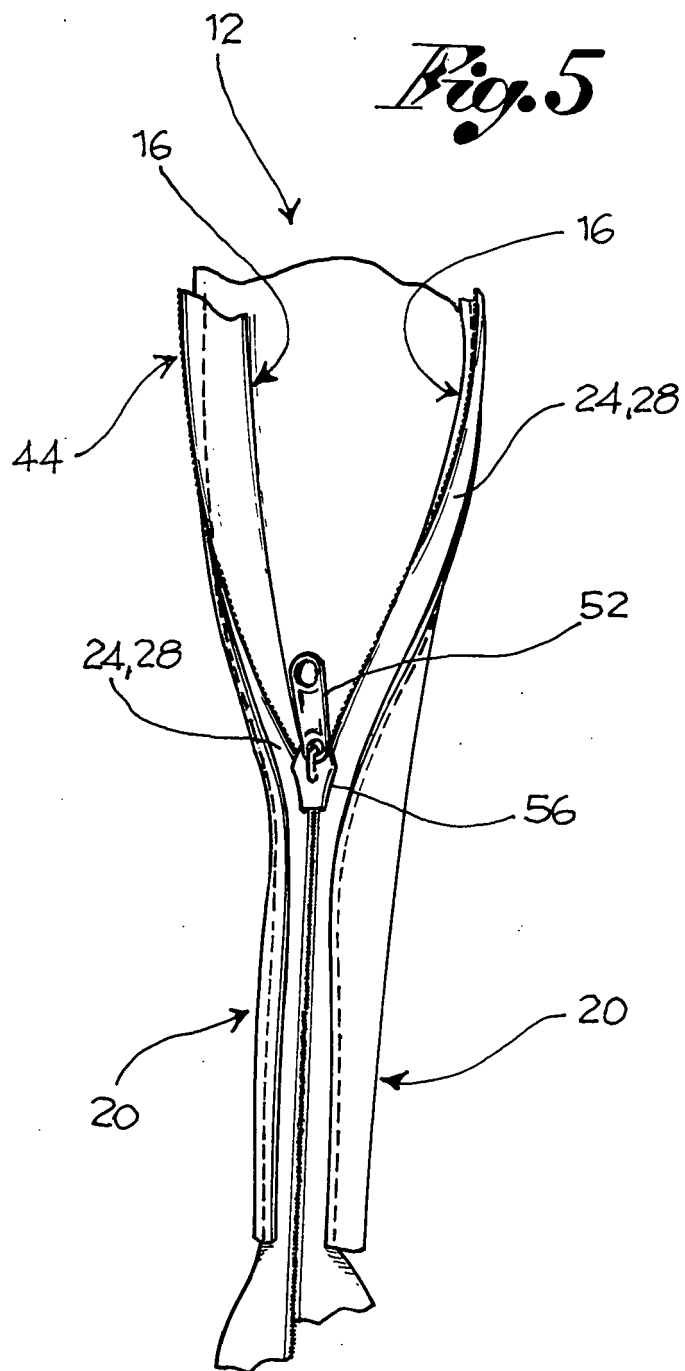


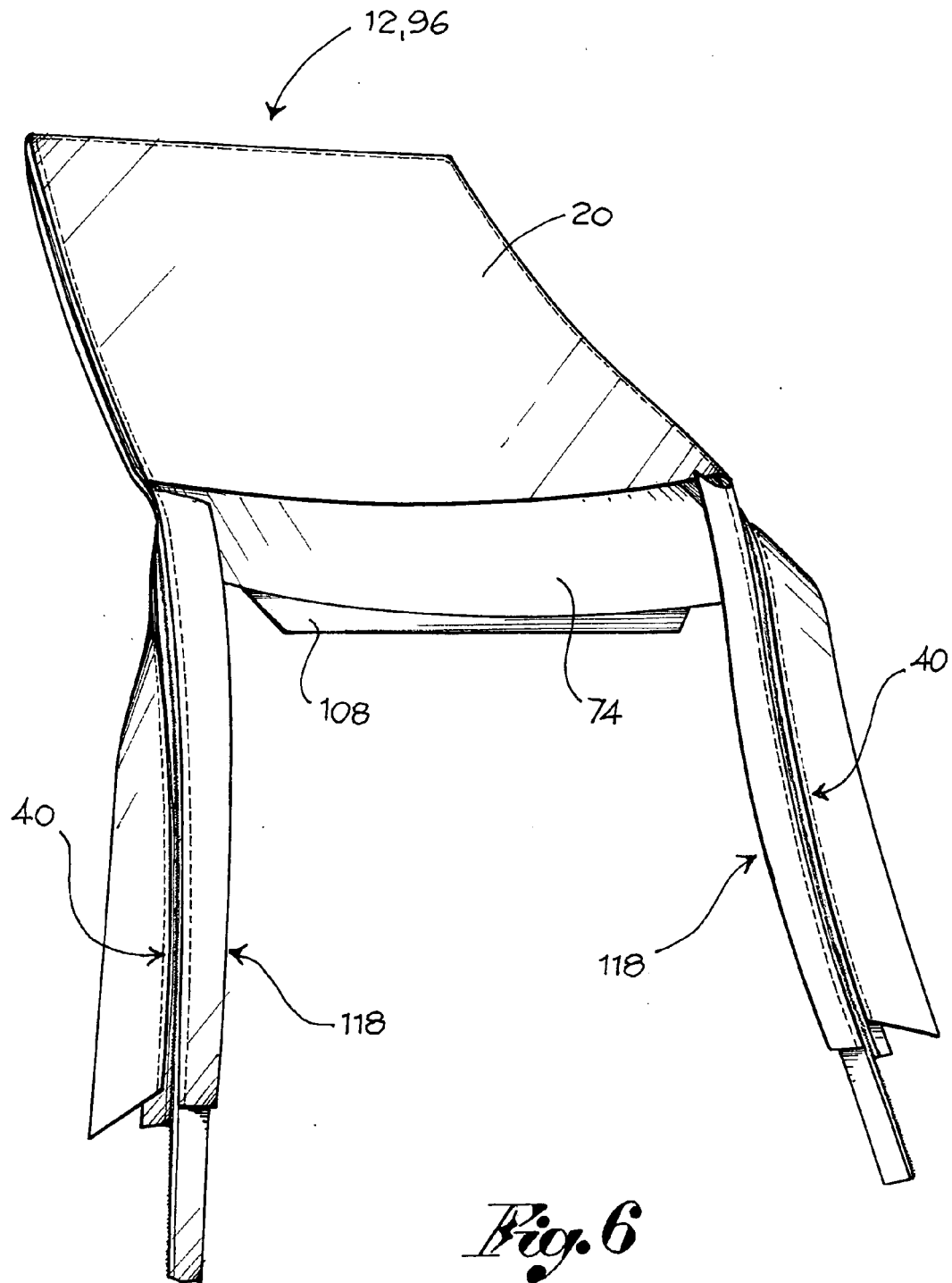
*Fig. 1*

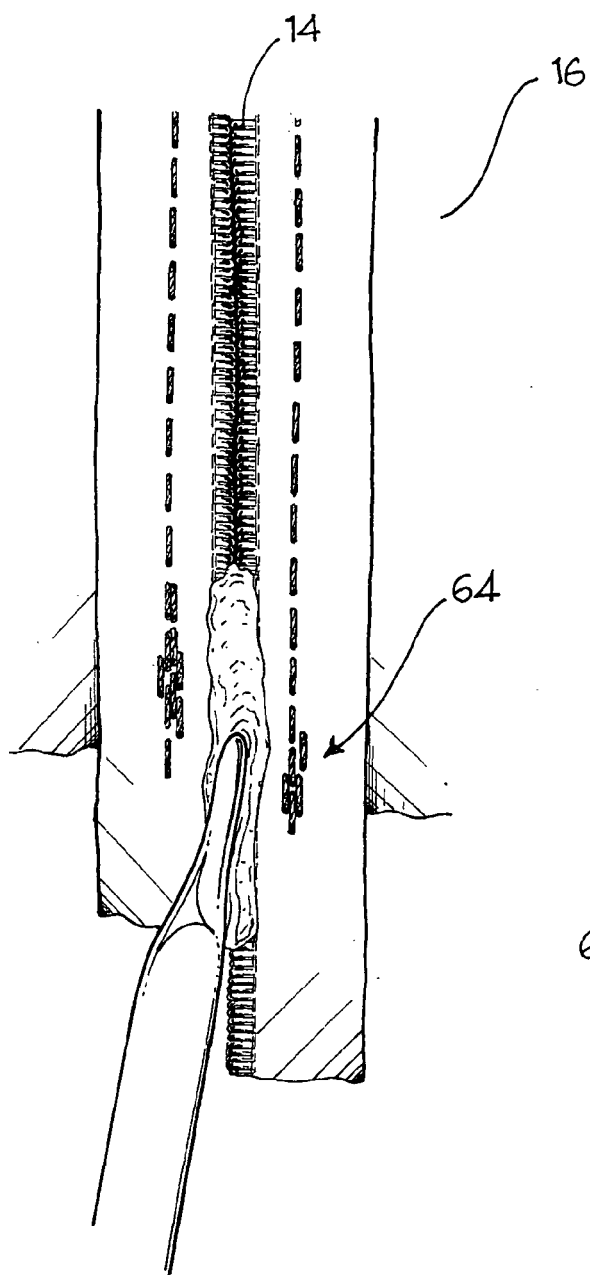




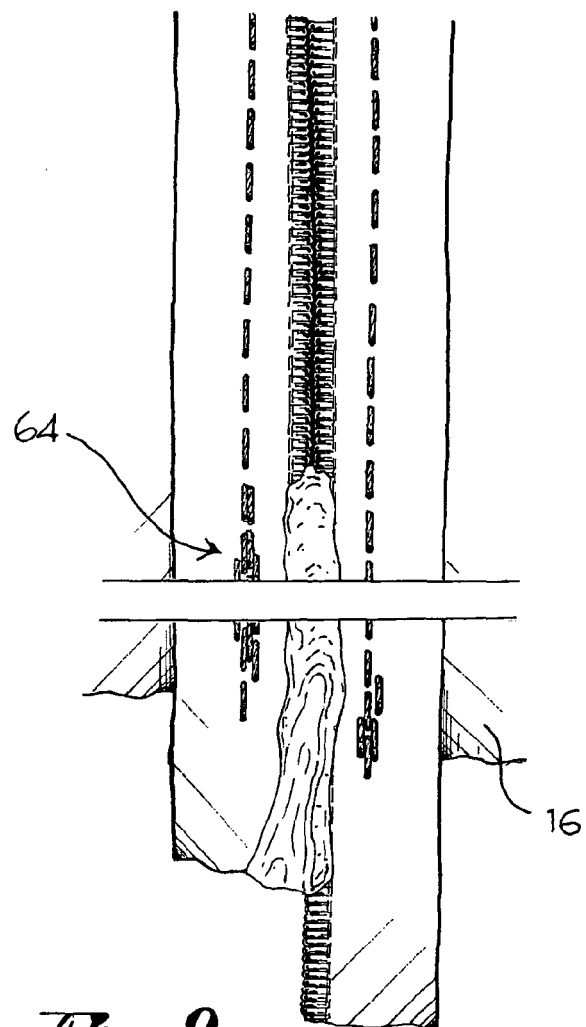




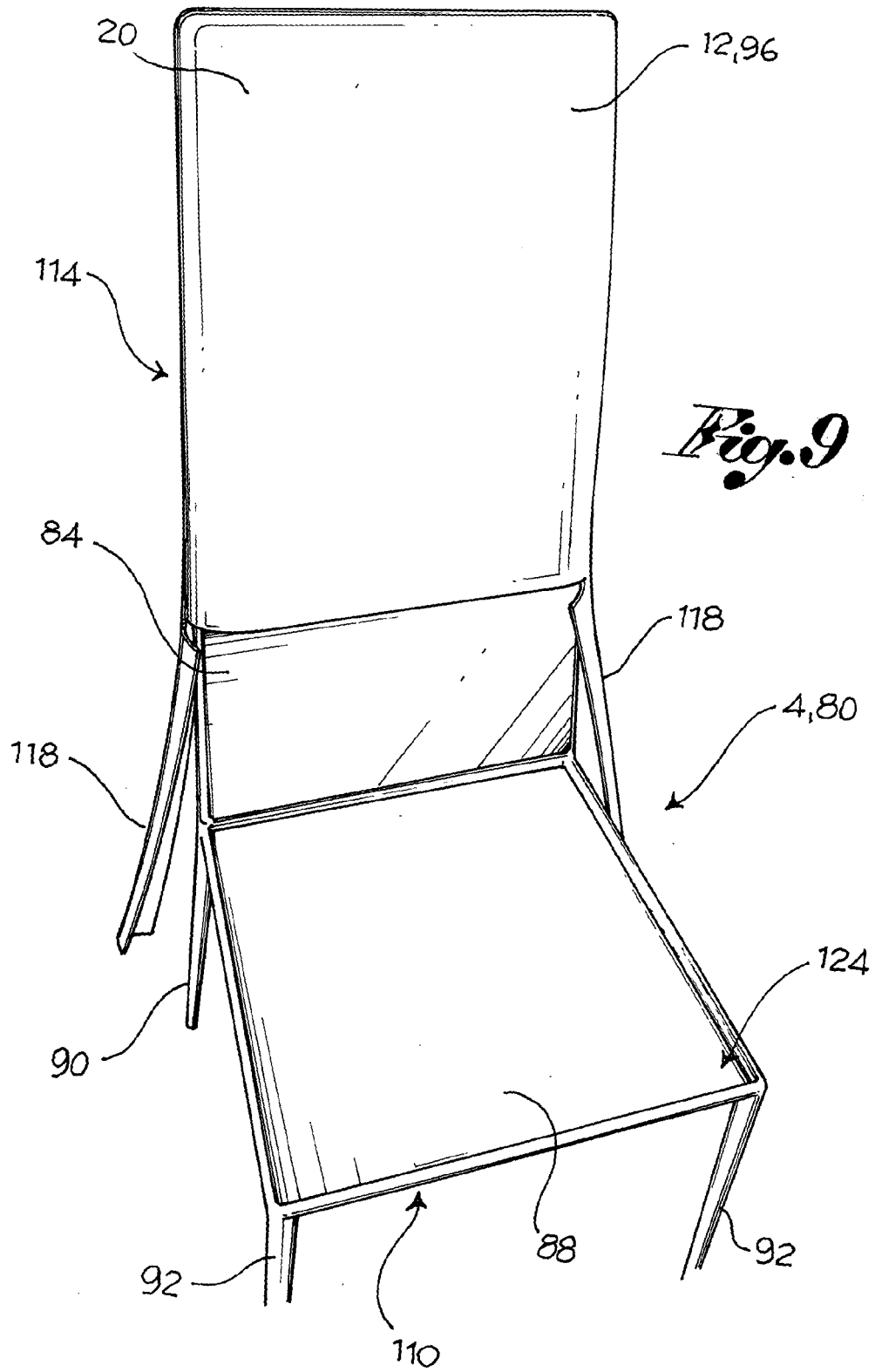


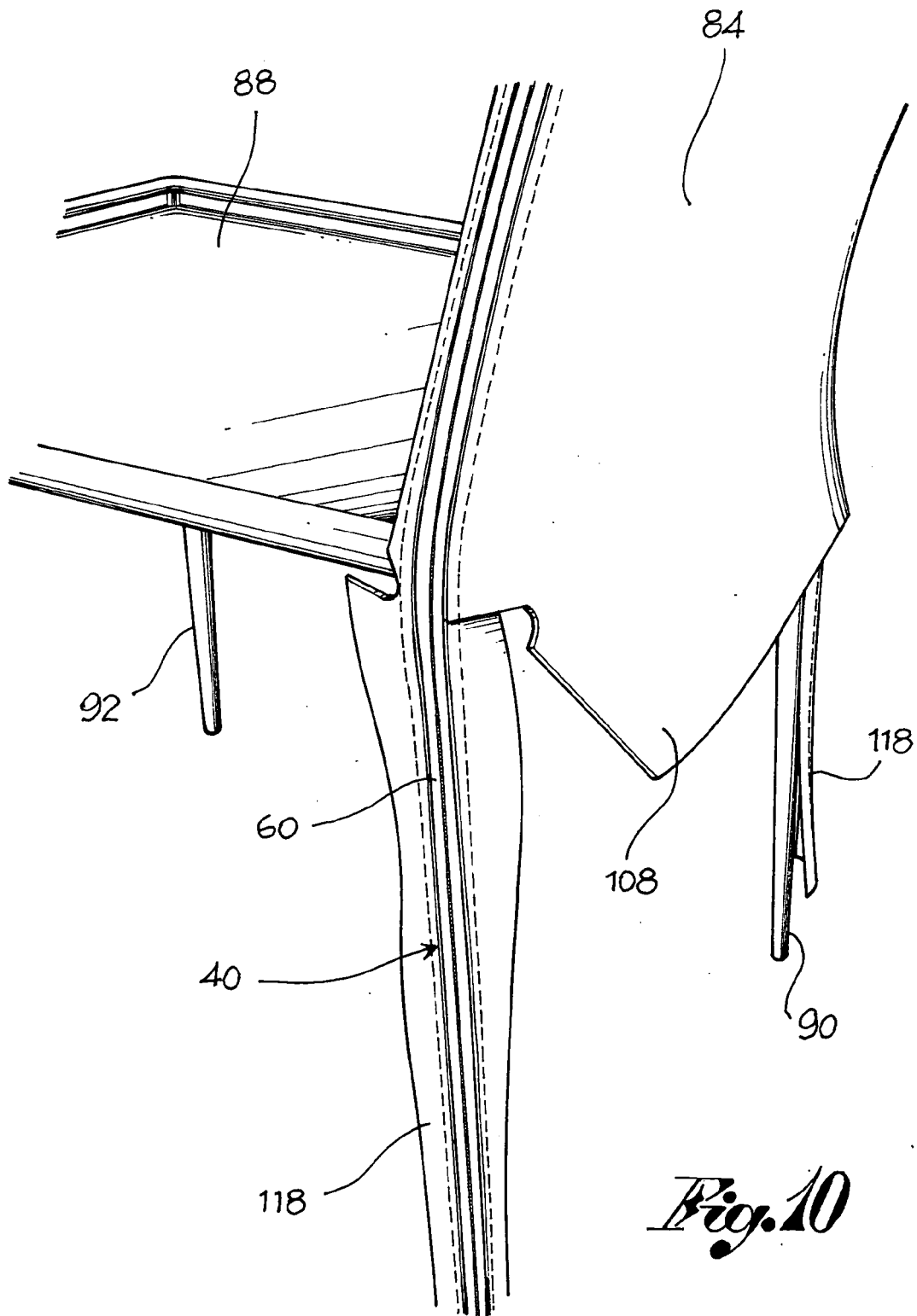


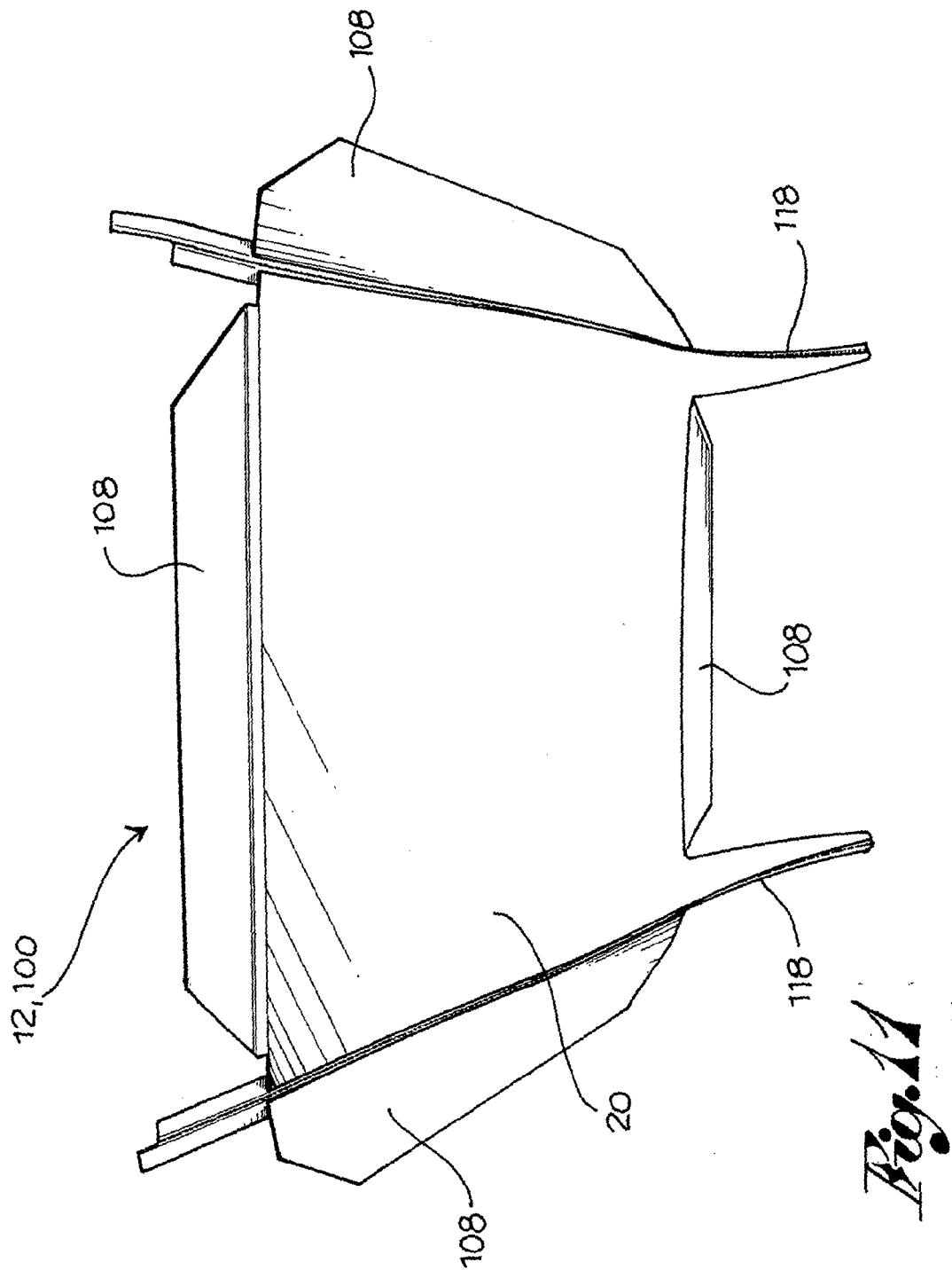
*Fig. 7*



*Fig. 8*

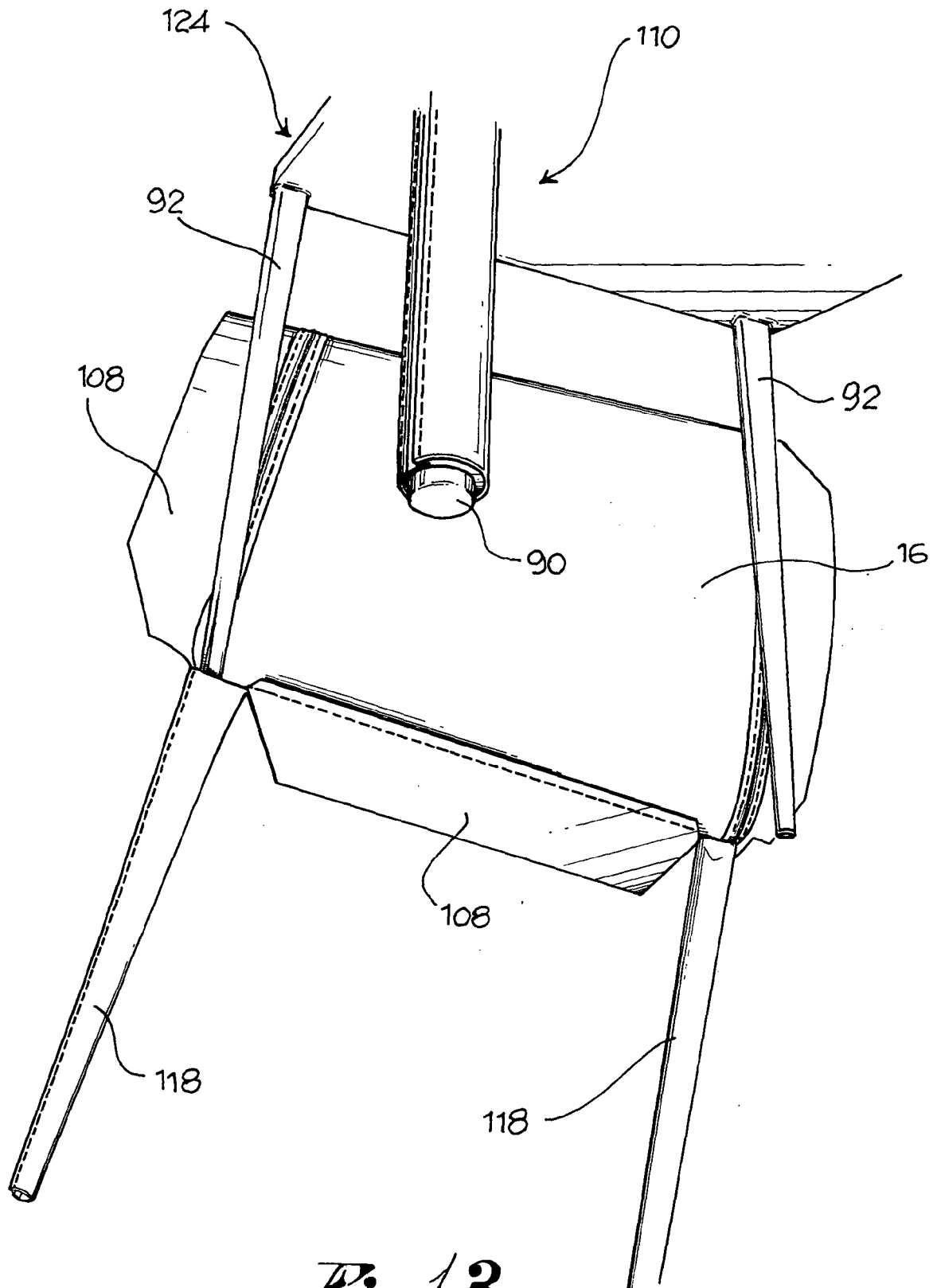




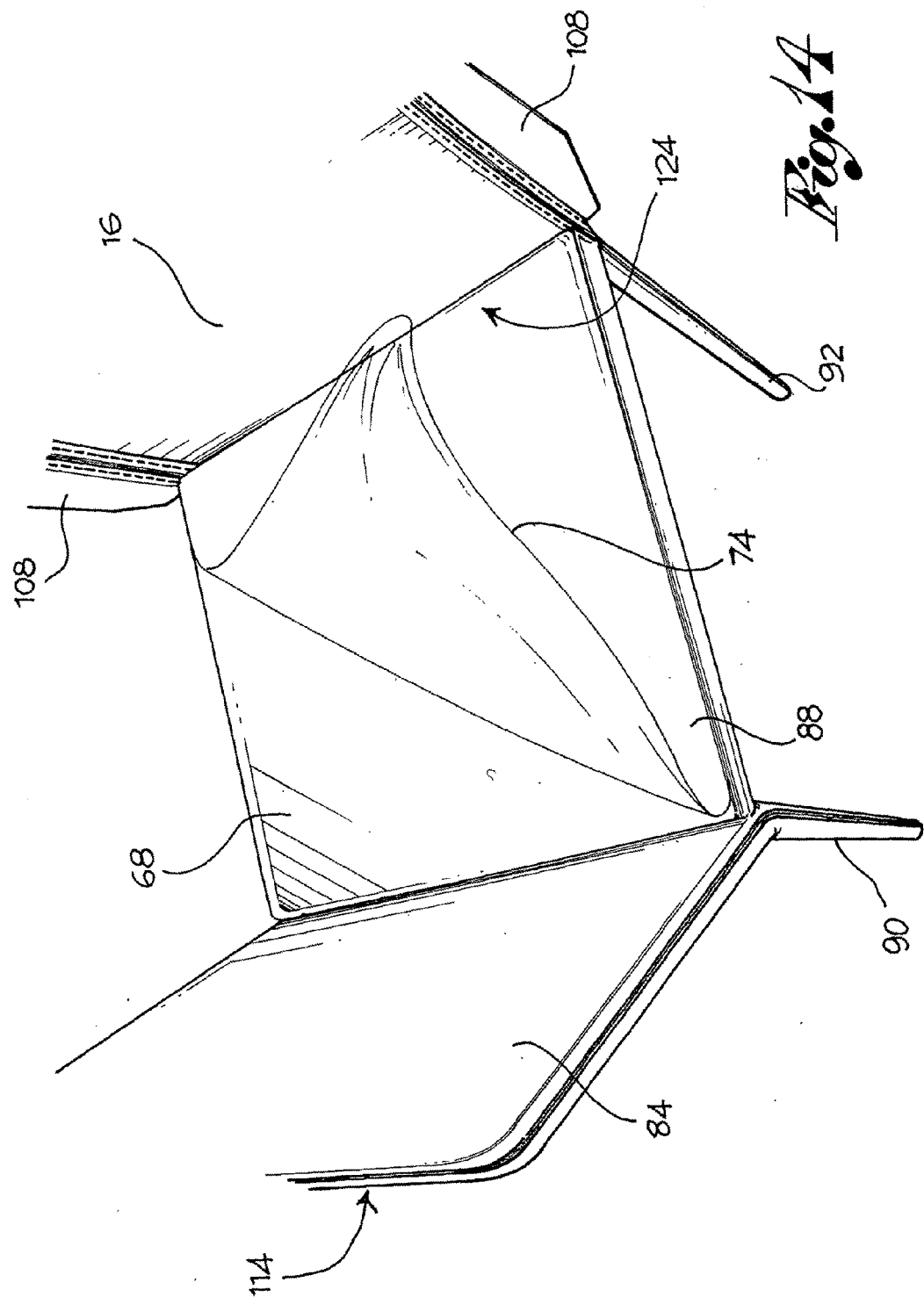


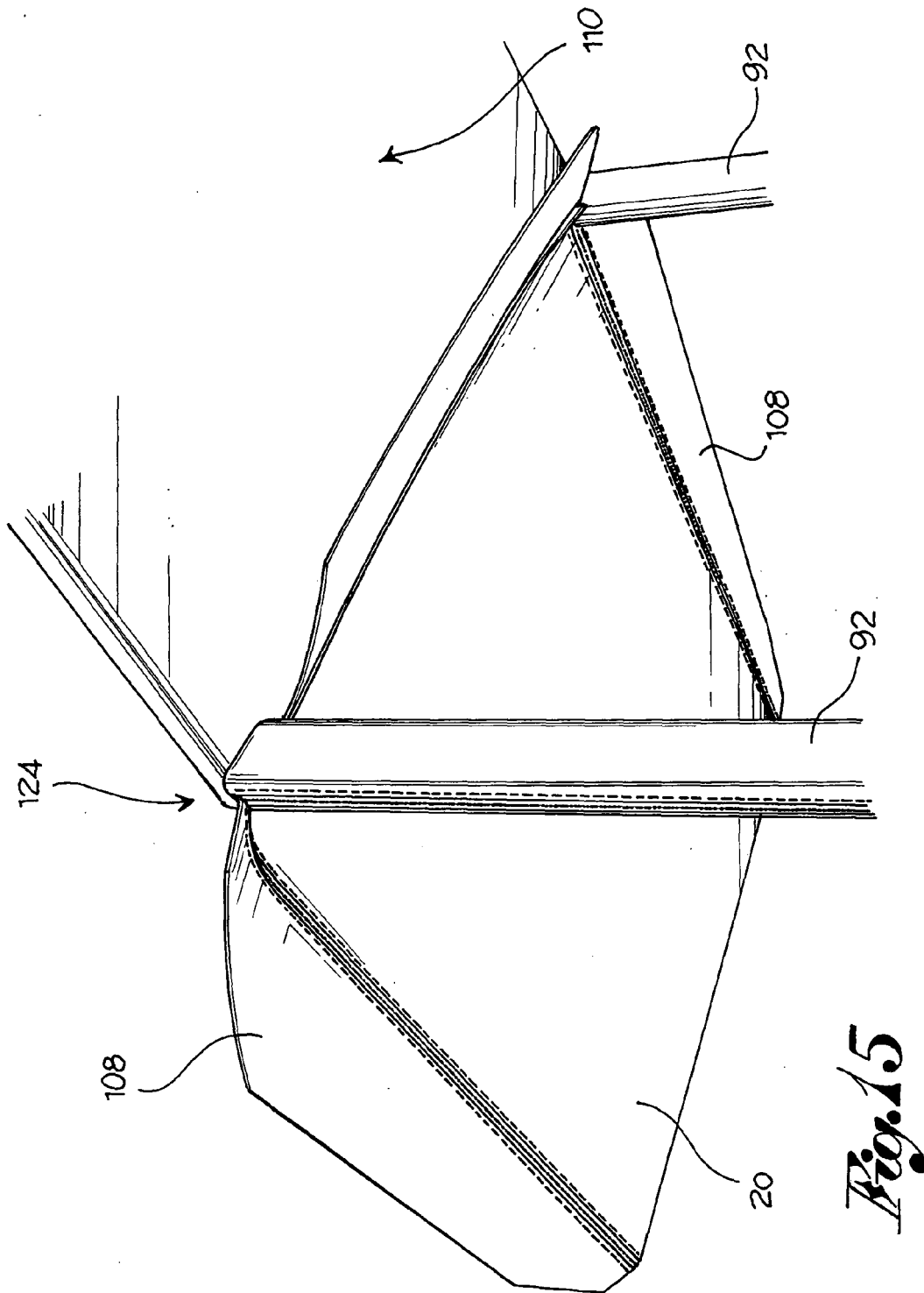






*Fig. 13*







European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 08 42 5072

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2 344 093 A (JULIEANN KOTOWICZ) 14 March 1944 (1944-03-14) * page 1, column 2, line 53 - page 2, column 2, line 14 * * figures 1-7 *	1,5,7-9, 20,23-25	INV. A47C31/11
X	EP 1 577 157 A (TS TECH CO LTD [JP]) 21 September 2005 (2005-09-21) * abstract * * paragraph [0017] - paragraph [0020] * * figure 1 *	1,5,7-9, 20,23-25	
A	GB 823 414 A (MINTY LTD; WILLIAM ROBERT BOWLES) 11 November 1959 (1959-11-11) * figures 1-4 *	1-25	
A	US 4 844 539 A (SELBERT ALAN J [US]) 4 July 1989 (1989-07-04) * abstract * * figure 1 *	1-25	
A	EP 0 555 559 A (MILLER HERMAN INC [US]) 18 August 1993 (1993-08-18) * abstract * * figures 1-4 *	1-25	TECHNICAL FIELDS SEARCHED (IPC) A47C B60N
A	US 6 079 779 A (TANAKA MITSURU [JP] ET AL) 27 June 2000 (2000-06-27) * figures 8-12 *	1-25	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 25 June 2008	Examiner MacCormick, Duncan
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

2

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 08 42 5072

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

25-06-2008

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2344093	A	14-03-1944	NONE	
EP 1577157	A	21-09-2005	JP 2005262628 A US 2005212344 A1	29-09-2005 29-09-2005
GB 823414	A	11-11-1959	NONE	
US 4844539	A	04-07-1989	AT 108146 T BR 8902955 A CA 1333102 C DE 68916619 D1 DE 68916619 T2 EP 0368438 A2 ES 2048134 T1 JP 2152412 A JP 6095968 B MX 168870 B	15-07-1994 13-11-1990 15-11-1994 11-08-1994 12-01-1995 16-05-1990 16-03-1994 12-06-1990 30-11-1994 11-06-1993
EP 0555559	A	18-08-1993	CA 2086947 A1 JP 5277265 A US 5288136 A	15-08-1993 26-10-1993 22-02-1994
US 6079779	A	27-06-2000	JP 3380150 B2 JP 11169263 A	24-02-2003 29-06-1999

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82