

(12) **UK Patent Application** (19) **GB** (11) **2 333 037** (13) **A**

(43) Date of A Publication **14.07.1999**

(21) Application No **9827869.0**

(22) Date of Filing **18.12.1998**

(30) Priority Data

(31) **9726633** (32) **18.12.1997** (33) **GB**  
(31) **9818702** (32) **28.08.1998**

(71) Applicant(s)

**Stadium Products Limited**  
**(Incorporated in the United Kingdom)**  
**Britannic House, 51 North Hill, PLYMOUTH, Devon,**  
**PL4 8HZ, United Kingdom**

(72) Inventor(s)

**Charles S Crocker**  
**Ben Hayden**

(74) Agent and/or Address for Service

**K R Bryer & Co**  
**7 Gay Street, BATH, BA1 2PH, United Kingdom**

(51) INT CL<sup>6</sup>

**A47C 7/42**

(52) UK CL (Edition Q )

**A4L LABF L114**

(56) Documents Cited

<b>GB 0720920 A</b>	<b>GB 0595508 A</b>	<b>GB 0443655 A</b>
<b>GB 0398345 A</b>	<b>EP 0169293 A1</b>	<b>EP 0046892 A1</b>
<b>WO 96/41556 A1</b>	<b>US 5524969 A</b>	<b>US 4732423 A</b>

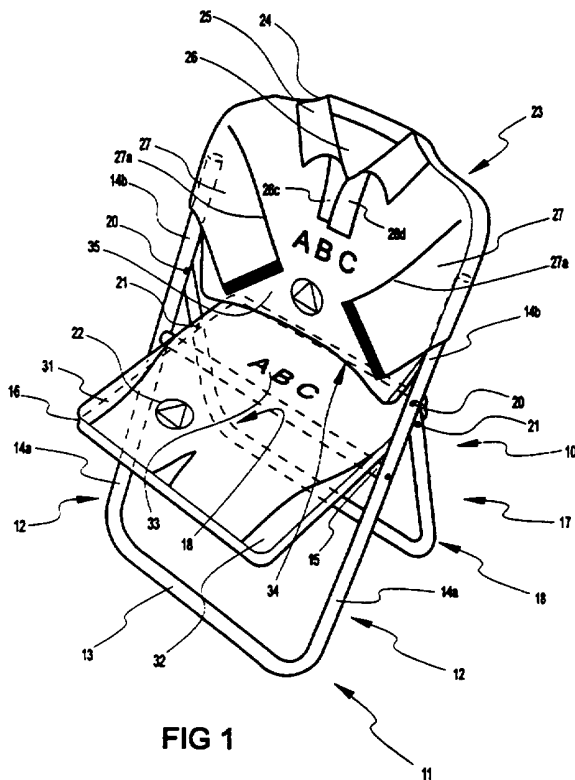
(58) Field of Search

UK CL (Edition Q ) **A4L LABA LABF LBRG**  
INT CL<sup>6</sup> **A47C 7/40 7/42**  
**Online: EPODOC, JAPIO, WPI**

(54) Abstract Title

**Chair with lumbar support**

(57) A foldable chair has a removable back 23 with a downwardly extending portion 35 which provides lumbar support. The chairback is shaped and decorated to simulate the presence of a fabric article arranged over it. The seat may also be decorated.



**FIG 1**

**GB 2 333 037 A**

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

This print takes account of replacement documents submitted after the date of filing to enable the application to comply with the formal requirements of the Patents Rules 1995

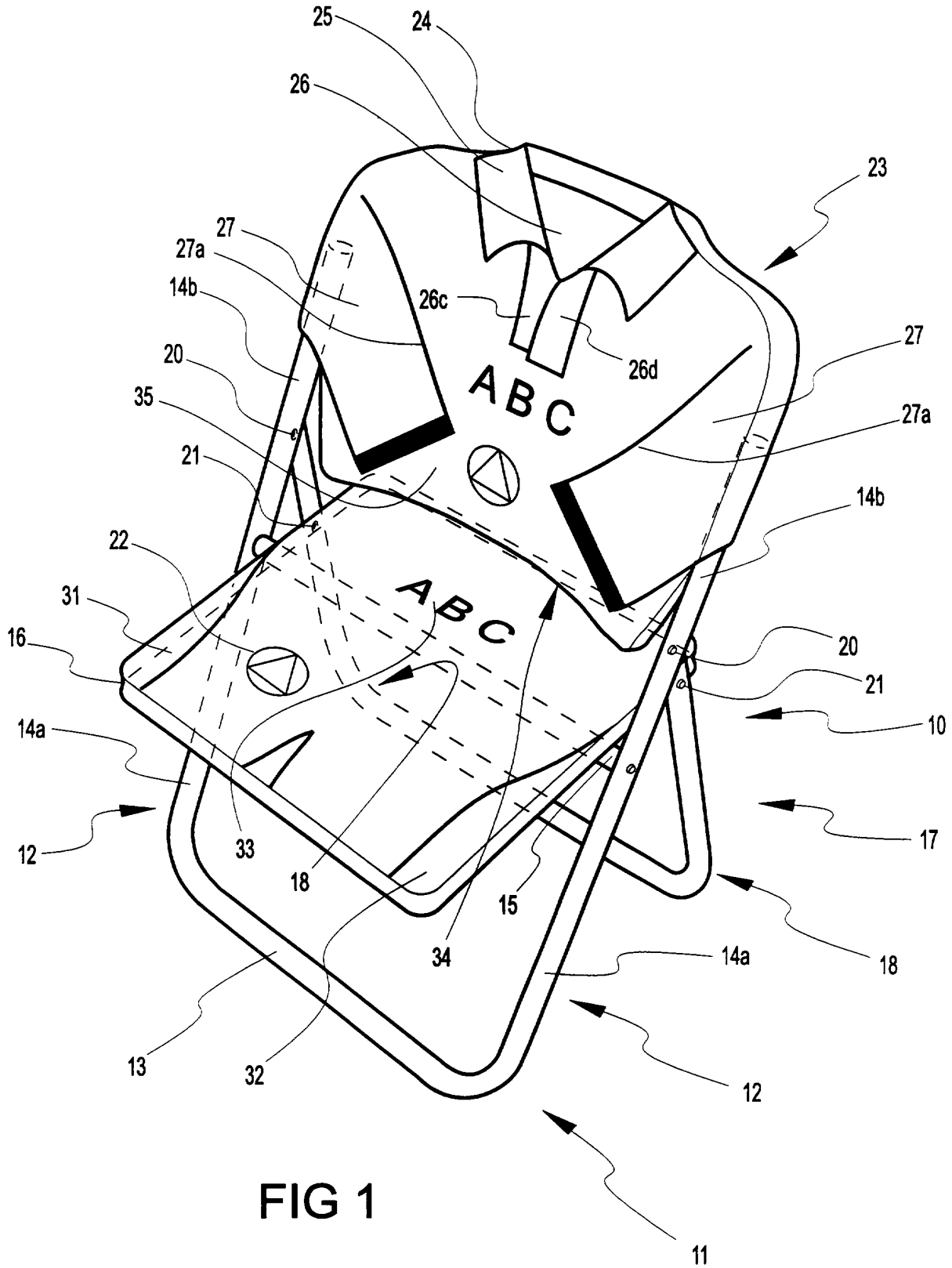


FIG 1

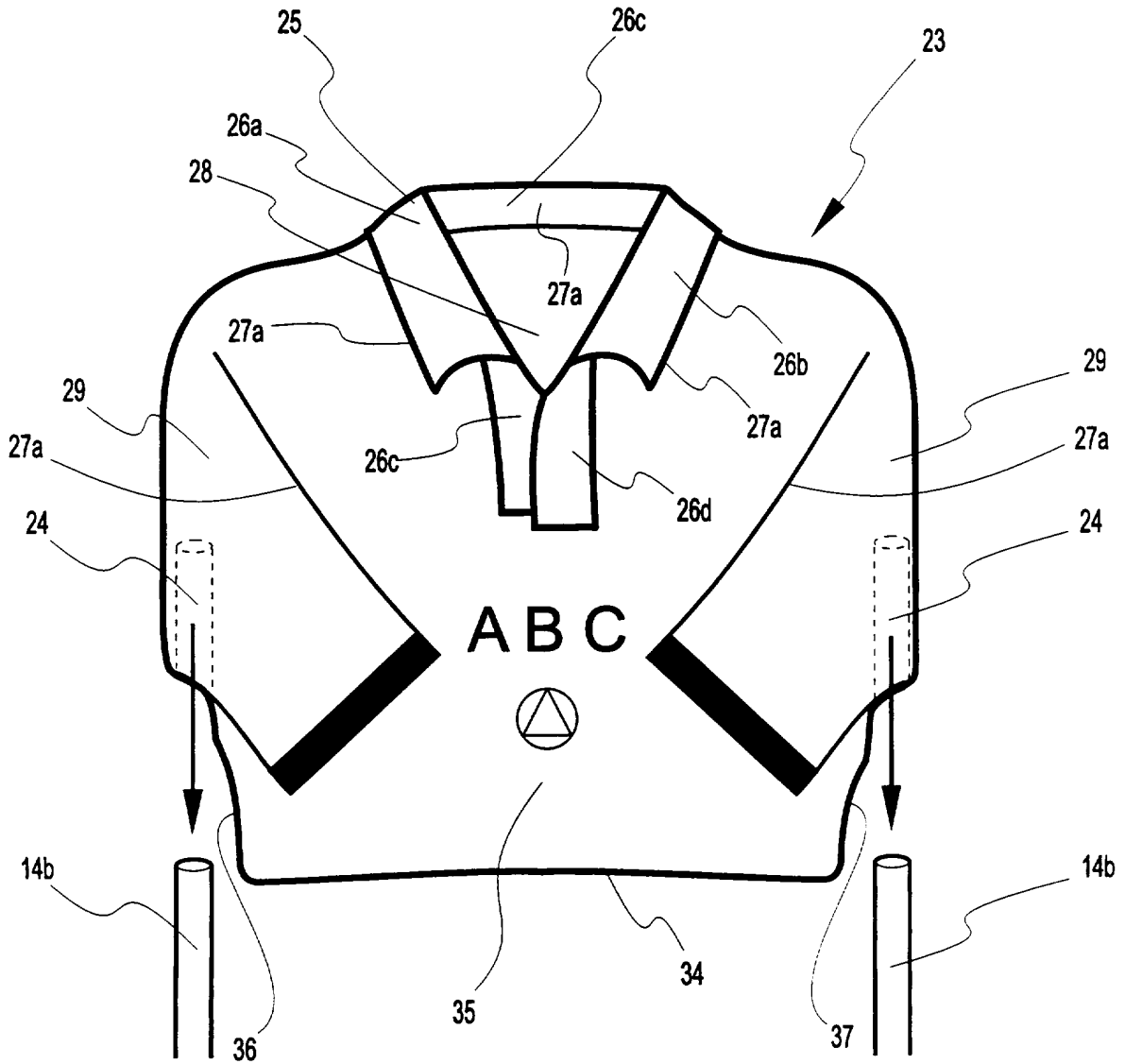


FIG 2

## SIMULATED FABRIC-COVERED ARTICLE

The present invention relates generally to an article of  
5 furniture, and in particular to an article of furniture  
at least a portion of which is shaped and decorated  
whereby to simulate the presence of a fabric article  
arranged over it. The simulation may, for example, be  
achieved by the shape of the portion and/or the texture  
10 of its surface and/or its surface decoration. The fabric  
article to be simulated is generally, but not  
necessarily, of textile or other relatively thin, supple  
material usable for garments and furnishing purposes.

15 The fabric article simulated may be a generally flat  
article which may look as if it is hanging in folds on  
its support, or a three-dimensional garment which holds  
its own shape or conforms to the shape of the body or  
object over which it is placed.

20 According to one aspect of the present invention, there  
is provided a chair back removably attachable to a chair  
frame at two laterally spaced attachment parts and having  
a portion projecting downwardly between the said two  
25 laterally spaced attachment parts to provide an extended  
support for the lower lumbar region of a user when  
sitting on a chair to which the said chair back is  
fitted.

An article made in accordance with the invention may thus comprise, for example, a chair back having a dependant flap or flaps so formed as to simulate a shirt hanging over it; such an article may conveniently be moulded  
5 integrally from plastics material, although other manufacturing techniques and materials may of course be employed, the clothing-simulating portion having a textured surface simulating a woven fabric and/or bearing a design such as those used on garments such as shirts or  
10 t-shirts. As an alternative the simulated fabric article may represent some other article such as a towel, a tea towel, a rug or a blanket. The dependent flap or flaps may simulate a shirt and such flaps also have the property of offering a larger flexible area in the region  
15 of the lower back to provide additional lumbar support which, because it is only supported at its upper edge provide a high degree of comfort to the user.

In a preferred embodiment of the invention the article  
20 comprises a chair back so shaped and decorated as to simulate the presence of a garment hung over the chair back. The chair back preferably comprises or includes a panel of plastics material or other suitable material, such as wood, plywood or sheet metal, which can be cut,  
25 shaped or moulded to the required form and/or on which an image of the fabric article can be formed or applied. Whatever the material used, the front face of the chair back against which the sitter rests is preferably flat or

smoothly curved, that is, having the normal shaping for chair backs so as not to have any protuberances which might cause discomfort to the user. Any fabric simulation on the front face of the chair back is thus preferably in the form of a generally two-dimensional representation of the three-dimensional garment being simulated in a "trompe l'oeil" fashion. The rear face of the chair back may, on the other hand, be formed or provided with a two- or three-dimensional representation of the article, the back panel optionally being extended beyond the normal extent of backrests to provide for any extension of the garment being simulated beyond the backrest.

One embodiment of the invention will now be more particularly described, by way of example, with reference to the accompanying Figures 1 and 2 which are perspective views of a chair and a chair back having a simulated shirt according to the invention.

With reference to Figure 1, a collapsable, tubular-frame chair generally indicated 10 is shown in its position of use. The chair 10 includes a front or main U-shape frame generally indicated 11, comprising two limbs 12 joined at their lower ends by a rectilinear bight portion 13 which rests on the ground. Each limb 12 comprises a lower portion 14a and an upper portion 14b. The two limbs 12 are further joined by an interconnecting strut 15.

The chair 10 further includes a rear or secondary U-shape frame generally indicated 17, comprising two limbs 18 joined at their lower ends by a rectilinear bight portion 19 which rests on the ground. The rear U-shape frame 17 is pivotally connected to the front U-shape frame 11 by pins 20.

The chair 10 further includes a rectangular seat frame 16 which is pivotally connected to the rear U-shape frame 17 near to the upper ends of the limbs 18 by pins 21, and rests on, and is in part supported by the interconnecting strut 15.

The three frames 11, 16 and 17 are pivotally interconnected by pins 20 and 21 so as to be erectable from a collapsed position (not shown), in which the frames lie alongside each other, to an erected condition shown in Figure 1.

The rectangular seat frame 16 supports a panel 22 constituting the seat of the chair 10, which may be a sheet of plastics or metal or other suitable material.

The upper portions 14b of the limbs 12 of the front U-shape frame 11 support a panel generally indicated 23 constituting the backrest of the chair 10, which may be a sheet of plastics or metal or other suitable material.

The backrest 23 is releasably connected to the upper portions 14b of the limbs 12 of the front U-shape frame 11 by sockets 24 in the lateral edges thereof, so as to be easily removable for substitution by other such backrest panels, as will be described below with reference to Figure 2.

The backrest 23 is printed with an image representing a shirt and its shape is such as to lend itself to a simulation of a shirt. The line defining the top of the upper edge of the backrest 23 has a projecting portion 25 protruding from the central region, and as will be explained in more detail below, is printed in such a way as to contribute to a simulation of a collar. This simulation comprises a combination of the shape of the projection 25 and an image of a collar represented by three generally trapezoidal areas 26a, 26b, and 26c, which in the monochromatic representation illustrated in the drawings appended hereto are bounded by outlines 27.

In embodiments of the invention printed in colour these areas 26a, 26b and 26c may be printed in a different colour from that of the remaining area of the backrest 23. The three generally trapezoidal areas 26a, 26b and 26c surround and define a generally triangular area 28 which represents and simulates the inside face of the back of the shirt represented by the image printed on the front of the backrest 23. For this purpose the generally



triangular area 28 may be printed with a paler shade of the same or a similar colour to the remaining area of the backrest 23. The generally trapezoidal area 26c which occupies the majority of the area of the projection 25  
5 may likewise be printed with a paler shade of the same or a similar colour to the other two generally trapezoidal areas 26a and 26b which represent the reverse of the shirt collar, and may, for example, be printed with a contrasting colour from that of the main body of the  
10 backrest 23 which represents the main body of the shirt. Some or all of the backrest may have a surface texture representation woven fabric.

The backrest 23 is further shaped by tapering of its  
15 width towards the bottom of the panel to form a flap 35 which represents the lower body of a shirt and which provides additional lumbar support for the lower back of a person sitting on the chair. This seat back is printed with areas 29 (see Figure 2) extending from the upper  
20 corners downwardly and inwardly towards the bottom 34 of the backrest 23 which represent sleeves of the shirt. In this embodiment the central portion of the backrest 23 also carries lettering and a logo for identification and/or advertising purposes.

25

The lower edge 34 of the backrest 23 can be positioned such as to engage against the rear edge of the seat panel 22 to assist in holding the chair in its erected

condition as shown in Figure 1. This, however, is not an essential requirement and the lower edge 34 may in other embodiments be spaced from the seat 22 when the chair is in the erected condition in order to give even greater flexibility and lumbar support.

The back face (not shown) of the backrest 23 may be plain or may carry an image of the back of the shirt or, indeed, the same image as the front or an image of a different article. The images may be printed, as indicated above, or formed in other ways, such as within the weave of a textile which is then attached such as by gluing to the face of the backrest 23. On its back face (not shown) the backrest 23 may have a three-dimensional applied or integrally moulded image. Additional fabric may depend from the backrest 23 beneath the level of the seat panel 22 of the chair 10 to simulate a longer garment draped over the backrest 23.

As shown in Figure 1 the seat 22 may itself be provided with a complementary simulation representing, in this example, a pair of shorts, by printing areas such as 31 and 32 with a different colour from the rest of the seat 22. Similarly other patterns or advertising material may be printed on the main central region 33 of the seat panel 22.

In order to improve the simulation and enhance the trompe

l'oeil effect, certain areas of the seat back panel 27  
and/or the seat 22 itself may be formed in low relief to  
stand out from the general plane defined by the rest of  
the panel. This may apply to the collar region 26a, 26b  
5 or the placket regions 26c, 26d and/or the regions 29  
which represent the sleeves. These regions may also be  
formed with a different surface texture from the rest of  
the panel to enhance the simulation effect.

**CLAIMS**

1. A chair back removably attachable to a chair frame at two laterally spaced attachment parts and having a portion projecting downwardly between the said two laterally spaced attachment parts to provide an extended support for the lower lumbar region of a user when sitting on a chair to which the said chair back is fitted.
2. A chair back as claimed in Claim 1, at least a portion of which provides a visual simulation that the chair back has a different and flexible article arranged over it.
3. A chair back as claimed in Claim 2, in which the simulation is achieved by the shape of the article and/or the texture of its surface and/or its surface decoration.
4. A chair back as claimed in Claim 2 or Claim 3, in which the said portion of the article simulates the superimposition of a flexible laminar fabric article.
5. A chair back as claimed in any preceding claim, in which the said portion of the article simulates a fabric which hangs in folds on a support.
6. A chair back as claimed in any one of Claims 1 to 5,

in which the said portion of the article simulates a garment.

7. A chair back as claimed in any preceding claim, in  
5 which the said portion is in the form of a two- or three-  
dimensional representation of a fabric article.

8. A chair back as claimed in any preceding claim, in  
which the article has a plurality of said portions.

10

9. A chair back as claimed in Claim 8, in which each  
said portion simulates the same or a different fabric  
article or part thereof.

15 10. A chair back as claimed in any preceding claim, in  
which the article is at least part of an item of  
furniture.

11. A chair back as claimed in Claim 10, in which the  
20 article is a towel, a coat, a table cloth, a rug or a  
blanket.

12. A chair having a seat back the lower part of a  
central region of which extends downwardly below the  
25 lowermost point at which the back is fixed to a frame of  
the chair whereby to offer additional support to the  
lower lumbar region of a user when sitting on the chair.

13. A chair as claimed in Claim 11 or Claim 12, in which the said portion extends beneath the level of the attachment of the back to the chair whereby to simulate a fabric article draped over the chair.

5

14. A chair as claimed in Claim 13, in which the simulated article is a shirt arranged on the backrest of the chair.

10

15. A chair as claimed in Claim 14, in which the upper edge of the backrest has an upstanding projection which forms part of the collar of the simulated shirt.

15

16. A chair as claimed in any of Claims 11 to 15, in which the seat of the chair is or is also provided with an image representation of a pair of shorts.

20

17. A chair as claimed in any of Claims 11 to 16, in which the seat back is embossed to provide area in relief to represent the arms of a shirt and/or a collar and/or a collar placket portion.

25

18. A chair as claimed in any of claims 11 to 17, in which the backrest is removably mounted on the frame of the chair to permit exchange with similarly shaped backrests having different simulated images thereon.

19. A chair as claimed in any of Claims 11 to 18, in

which the seat back is formed with a texture simulating woven fabric.

20. An article substantially as hereinbefore described  
5 with reference to and as shown in the accompanying drawing.



Application No: GB 9827869.0  
Claims searched: 1-20

Examiner: Neil Franklin  
Date of search: 10 May 1999

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:  
UK Cl (Ed.Q): A4L (LABA, LABF, LBRG)  
Int Cl (Ed.6): A47C 7/40, 7/42  
Other: Online: EPODOC, JAPIO, WPI

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	GB 720 920 (BORK) See chairback in Figure 1	1,12 at least
X	GB 595 508 (DALLEY) See chairback of Figure 1	1,12 at least
X	GB 443 655 (TAN-SAD) See Figures	1,12 at least
X	GB 398 345 (CAREY) See chairback of Figure 1	1,12 at least
X	WO 96/41556A1 (MILLER) See chairback 270 in Figures 17&18	1,12 at least
X	EP 169 293A1 (BE-GE STOLINDUSTRI) See chairback of Figure 2	1,12 at least
X	EP 46 892A1 (NISSAN) See chairback of Figures	1,12 at least
X	US 5 524 969 (HARRISON) See chairback of Figures	1,12 at least

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.





The Patent Office

14



Application No: GB 9827869.0  
Claims searched: 1-20

INVESTOR IN PEOPLE  
Examiner: Neil Franklin  
Date of search: 10 May 1999

Category	Identity of document and relevant passage	Relevant to claims
X	US 4 732 423 (CONDON) See chairback 11 in Figures	1,12 at least

X Document indicating lack of novelty or inventive step	A Document indicating technological background and/or state of the art.
Y Document indicating lack of inventive step if combined with one or more other documents of same category.	P Document published on or after the declared priority date but before the filing date of this invention.
& Member of the same patent family	E Patent document published on or after, but with priority date earlier than, the filing date of this application.