The present invention relates to a portable child seat that can be easily mounted upon an existing chair or seat to convert it into use for an infant. The portable child seat is adapted such that it can be used on different chairs or seats as it is possible to alter the length or size as required.
Description

[0001] The present invention relates to a portable child seat that can be easily mounted upon an existing chair or seat to convert it into use for an infant.

[0002] Typically, when providing seating for infants, it is necessary to provide seating in the form a high chair. Most often this type of chair comprises a seated area, along with a supporting back section, as well as a moveable feeding tray and some manner of securing the infant into position. In most cases, the high chairs are provided with a wooden, plastic or metal frame, which includes legs to raise the infant seat up to standard table height. Whilst the chairs are very effective and useful for seating a child in the home, they are not appropriate for transporting around, as their bulky size and weight means that they are not easily portable.

[0003] Attempts have been made to try and overcome the problems caused by a standard high chair, by providing infant seats that can be used in conjunction with ordinary chairs and seats, and in particular dining chairs.

[0004] Patent No GB2274581 entitled "Portable Infant Seat" describes a lightweight seat that has a fabric sleeve and a fabric pouch with openings for an infant's legs. This type of infant seat can be used in conjunction with an ordinary dining chair, and the fabric pouch can be extended such that a child can be placed inside. However, one drawback of this invention is that it is only appropriate for use on one size of dining chair and typically chairs, particularly in restaurants, do not come in a single size. There is also an issue that, in many cases, chairs have an open section in the chair back. The earlier described invention does not account for this, and there is the possibility that the fabric pouch can slip backwards through the aperture in the chair back causing discomfort for the infant.

[0005] It can be seen that it would be beneficial to provide a portable child seat that improves upon typical high chairs and portable seats that have been described previously.

[0006] According to a first aspect of the present invention, there is provided a portable child seat for use with the chair back of an existing chair, wherein the child seat comprises an upper section adapted to be attachable to the existing chair and a lower section arranged to form a pouch seat, and wherein at least part of the child seat is provided with means for altering the length of the seat.

[0007] According to a second aspect of the present invention, there is provided a portable child seat for use with the chair back of an existing chair, wherein the child seat comprises an upper section adapted to be attachable to the existing chair, a lower section arranged to form a pouch seat and a back support means adapted to be attachable to the existing chair back.

[0008] Preferably, the upper and lower sections are connected by an elongate body section.

[0009] Preferably, the pouch seat is formed by the lower section folding such that it can fit through a child's legs and be secured around the child's torso.

[0010] Optionally, the pouch seat is secured around the child's torso using fasteners that are attachable to the elongate body section.

[0011] Preferably, the pouch seat attaches to the elongate body section using co-operative male and female fastening means.

[0012] Preferably, the elongate body section is provided with a plurality of female fastening means.

[0013] Preferably, the fastening means are press studs comprising male and female sections.

[0014] Alternatively, the fastening means are buttons and apertures.

[0015] A further alternative is that the fastening means are in the form of a zip.

[0016] Optionally, the portable child seat is provided with binding ties.

[0017] Preferably, the binding ties are attached to the pouch seat in an area that will be positioned under the child's armpits during use.

[0018] Preferably, the binding ties are secured around both the child and the chair back during use.

[0019] Optionally, the binding ties may be secured using a clasp or tie.

[0020] Optionally, the pouch seat is provided with means for altering its size.

[0021] Preferably, the means for altering the size of the pouch seat are co-operative fasteners positioned on the inner surface of the pouch seat.

[0022] Preferably, the co-operative fasteners positioned on the inner surface of the pouch seat are arranged such that the pouch seat is smaller when they are fastened.

[0023] Alternatively, the means for altering the size of the pouch seat are protruding ties and apertures, such that the ties can be passed through an aperture and knotted in order to alter the length of the seat.

[0024] Optionally, the back support means is a strip of material adapted to be secured around the chair back.

[0025] Optionally, the back support means is separate from the upper section, elongate body section and pouch seat.

[0026] Alternatively, the back support means is attached to the elongate body section.

[0027] Optionally, the upper section is in the form of a pocket adapted to fit over the back of the existing chair.

[0028] Preferably, the upper section comprises apertures adapted to allow protruding chair uprights on the existing chair to fit through.

[0029] Preferably, the pocket is provided with securing means to secure it to an existing chair.

[0030] Preferably the securing means is a drawstring adapted to fit around the edge of the pocket.

[0031] Alternatively the securing means is elasticated material adapted to fit tightly around the chair.

[0032] In order to provide a better understanding of the present invention, embodiments will now be described by way of example only, and with reference to
the following drawings, in which:

Figure 1 shows a back view of a portable child seat according to a first embodiment of the present invention;

Figure 2 shows a front view of a portable child seat according to a first embodiment of the present invention;

Figure 3 shows a back view of a portable child seat according to a second embodiment of the present invention;

Figure 4 shows a front view of a portable child seat according to a second embodiment of the present invention;

Figure 5 shows a view of a portable child seat in use on an existing chair, according to a third embodiment of the present invention;

Figure 6 shows a view of the pouch area of a portable child seat that has been extended fully, according to a fourth embodiment of the present invention; and

Figure 7 shows a view of the pouch area of a portable child seat that has been shortened, according to a fourth embodiment of the present invention.

[0033] In a first embodiment of the present invention, there is provided a portable child seat 1, front and back views of which can be seen in Figures 1 and 2 respectively. The portable child seat 1 is made of fabric and has an upper section 2 which is in the form of a pocket which hooks over the back of an existing chair. In this embodiment the pocket also comprises an elastic section adapted to further secure the pocket to the chair. An elongate body section 3 extends from the upper section 2, which itself extends into a pouch seat arrangement 4. The pouch seat 4 is shaped such that it can be fitted through a child’s legs and then secured around the child’s torso to form a secure harness using the binding ties 5. In this embodiment, the binding ties also pass around the back of the chair 9 such that the child is secured to the chair 9. Additional security is provided by male and female fasteners 6, 7 which can be fastened to secure the child in place.

[0034] As existing chairs 9 are provided in a wide range of shapes and sizes, there are provided a number of female fasteners 7 at different positions on the elongate body section 3. This means that the male fastener 6 can be securely fastened at a number of varying positions along the elongate body section 3 to allow for a range of different sized chairs 9.

[0035] In a second embodiment of the present invention, the back of which is shown in Figure 3 and the front of which is shown in Figure 4, the portable child seat 10 is adapted for use with existing chairs that have a cavity in the chair back according to the chair’s design. In order to prevent a child using the portable child seat 10 from slipping back through the cavity in the chair back, the portable child seat 10 is provided with a back support means 8 in a form resembling a cummerbund. In use, the back support section is secured around the chair back, at least partially covering the cavity. Securing the back support means 8 in this manner ensures that the child cannot slip backwards through the cavity in the chair back.

[0036] Figures 3 and 4 also show apertures 11 in the upper section 2. These apertures 11 will allow the protruding chair uprights that are found on many chair backs to fit through the upper section 2, further assisting in holding the portable child seat 10 in position. These apertures 11 are also shown in Figure 5 in use on a chair back.

[0037] In a third embodiment of the present invention, as shown in Figure 5, the portable child seat 1 of the first embodiment is adapted for use on chairs with cavity backs in a similar manner to the second embodiment. However, rather than the back support means 8 being attached to the elongate body section 3, as in the second embodiment, the back support means 8 are in the form of a separate cummerbund type section 80, which can be attached to the back of the chair 9, as shown in Figure 5. This separate back support section 80 again prevents a child slipping backwards through a cavity in the back of a chair 9.

[0038] According to a fourth embodiment of the present invention, the portable child seat 1,10 is provided with a different method of varying its length than that described previously. As can be seen in Figures 6 and 7, the pouch seat 4 is provided with co-operative male 6 and female 7 fastening means in the area that will be positioned below the child when the portable child seat 1,10 is in use. The male fastener 6 can be attached to any one of a plurality of female fasteners 7. Attaching the fasteners 6,7 together in this manner results in the portable child seat 1 altering in size.

[0039] Further embodiments may exist where the portable child seat is adjustable in length/size by other means. For example, the upper section of the portable child seat may be in the form of straps that can be lengthened or shortened depending upon requirements. Alternatively, the co-operative male and female fasteners may be replaced with an elongate tie and a plurality of apertures, wherein the elongate tie can pass through a chosen aperture to change the size of the pouch seat/portable chair. Knotting the elongate tie prevents it from moving back through the aperture, holding the new size in place.

[0040] It can be seen that in all embodiments of the present invention the portable child seat allows an infant to be securely held in an existing seat, this has the benefit that existing chairs in restaurants, etc., can easily be
converted by use of this very portable apparatus into a high chair for use by children.

[0041] As the portable child seat is adjustable in size, this means that it can be used in a range of settings on many different chairs.

[0042] Also, the portable child seat 1 or 10 can be made from any appropriate material, and can incorporate additional attachments for comfort or security, such as padding in the pouch seat 4, or waterproofing etc.

[0043] The embodiments described above should not be considered as limiting, but should merely be taken as examples to teach one skilled in the art as to the various possibilities for the present invention.

Claims

1. A portable child seat (1) for use with the chair back of an existing chair (9), wherein the child seat (1) comprises an upper section (2) adapted to be attachable to an existing chair (9) and a lower section arranged to form a pouch seat (4) and wherein at least part of the child seat is provided with means for altering the length of the seat.

2. A portable child seat (1) as in claim 1 wherein the child seat further comprises and a back support means (8) adapted to be attachable to the existing chair back.

3. A portable child seat (1) as in any of the previous claims wherein the upper (2) and lower (4) sections are connected by an elongate body section (3).

4. A portable child seat (1) as in any of the previous claims wherein the pouch seat (4) is formed by the lower section folding such that it can fit through a child's legs and be secured around the child's torso.

5. A portable child seat (1) as in claim 4 wherein the pouch seat (4) is secured around the child's torso using fasteners that are attachable to the elongate body section (3).

6. A portable child seat (1) as in claim 5 wherein the pouch seat attaches to the elongate body section using co-operative male and female fastening means.

7. A portable child seat (1) as in claim 6 wherein the elongate body section is provided with a plurality of female fastening means.

8. A portable child seat (1) as in claims 5 to 7 wherein the fastening means are press studs comprising male and female sections.

9. A portable child seat (1) as in claims 5 to 7 wherein the fastening means are buttons and apertures.

10. A portable child seat (1) as in claims 5 to 7 wherein the fastening means are in the form of a zip.

11. A portable child seat (1) as in any of the previous claims wherein the portable child seat (1) is provided with means, in the form of binding ties (5), for binding a child to the chair (9) during use.

12. A portable child seat (1) as in claim 11 wherein the binding ties (5) are attached to the pouch seat (4).

13. A portable child seat (1) as in any of the previous claims wherein the binding ties (5) are attached to both the child and the chair back during use.

14. A portable child seat (1) as in any of the previous claims wherein the pouch seat (4) is provided with means for altering its size.

15. A portable child seat (1) as in claim 14 wherein the means for altering the size of the pouch seat (4) are co-operative fasteners (6,7) positioned on the inner surface of the pouch seat (4).

16. A portable child seat (1) as in claims 14 and 15 wherein the co-operative fasteners (6,7) positioned on the inner surface of the pouch seat (4) are arranged such that the pouch seat (4) is smaller when they are co-operatively engaged.

17. A portable child seat (1) as in claim 14 wherein the means for altering the size of the pouch seat (4) are protruding ties and apertures, such that the ties can be passed through an aperture and knotted in order to alter the length of the seat (1) or size of the pouch (4).

18. A portable child seat (1) as in any of the previous claims wherein the back support means is a strip of material (80) adapted to be secured around the chair back that is separate from the upper (2) section, elongate body section (3) and pouch seat (4).

19. A portable child seat (1) as in claims 1 to 17 wherein the back support means is a strip of material (8) adapted to be secured around the chair back which is attached to the elongate body section (3).

20. A portable child seat (1) as in any of the previous claims wherein the upper section (2) is in the form of a pocket adapted to fit over the back of the existing chair (9).

21. A portable child seat (1) as in any of the previous claims wherein the upper section (2) comprises apertures (11) adapted to allow protruding chair up-
rights on the existing chair (9) to fit through.

22. A portable child seat (1) as in claims 20 to 21 wherein the pocket is provided with securing means to secure it to an existing chair.

23. A portable child seat (1) as in claim 22 wherein the securing means is a drawstring adapted to fit around the edge of the pocket.
**DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document with indication, where appropriate, of relevant passages</th>
<th>Relevant to claim</th>
<th>CLASSIFICATION OF THE APPLICATION (Int.Cl.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>CH 649 206 A (GERBER-WOHLGEMUTH) 15 May 1985 (1985-05-15) * the whole document *</td>
<td>1,3-5, 11-13, 20-23</td>
<td>A47D15/00</td>
</tr>
<tr>
<td>A</td>
<td>* the whole document *</td>
<td>2,6, 8-10,14</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>US 4 702 523 A (SCHRADER) 27 October 1987 (1987-10-27) * the whole document *</td>
<td>1,3,4,19</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>2,6, 8-10,14, 15,17, 18,22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL FIELDS SEARCHED (Int.Cl.)**

A47D

---

The present search report has been drawn up for all claims

---

**Place of search**: The Hague  
**Date of completion of the search**: 21 June 2005  
**Examiner**: VandeVondele, J

---

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

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.

21-06-2005

<table>
<thead>
<tr>
<th>Patent document cited in search report</th>
<th>Publication date</th>
<th>Patent family member(s)</th>
<th>Publication date</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 4702523 A</td>
<td>27-10-1987</td>
<td>NONE</td>
<td></td>
</tr>
</tbody>
</table>

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