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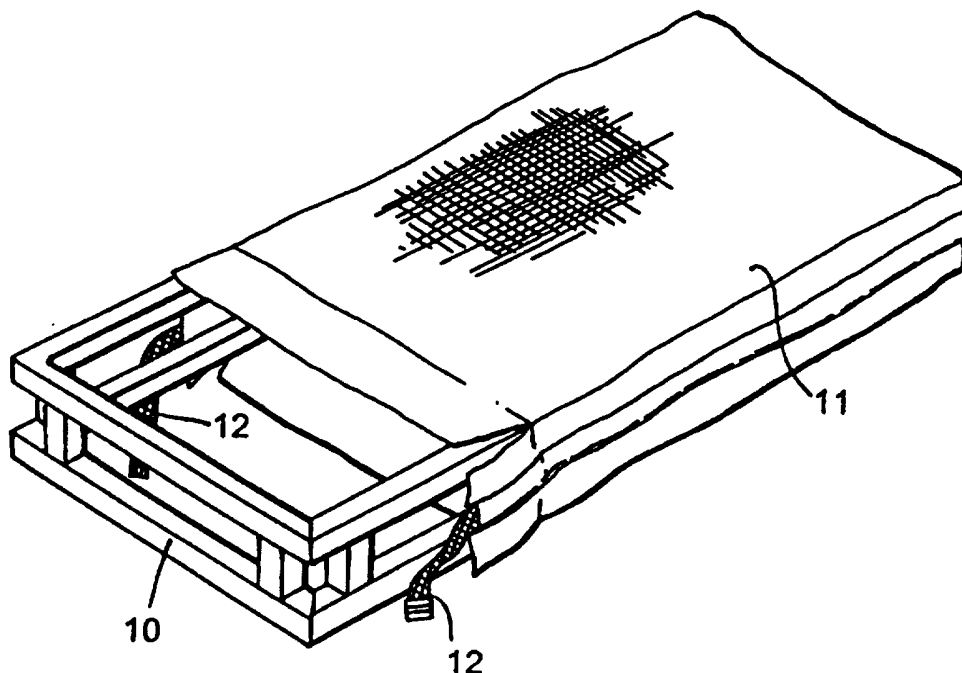
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(54) Title: CHILD SAFETY MATTRESS



(57) Abstract

A child safety mattress comprising a box frame (10) and an elasticated cover (11) extending over the frame (10), the cover (11) having an opening at one end and being closed at the other.

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CHILD SAFETY MATTRESS

This invention relates to a child's safety mattress.

Children's safety mattresses are well known in children's cots, carry cots and prams, being made from foam, rubber or natural fibres and spring arrangement or a combination of both. These mattresses are manufactured to fit their required cot, carry cot or pram. During their manufacture the majority are treated with chemicals to make them fire retardant. Many of them have breathing holes right through the mattress in the area where the child's head would lie. This ensures safe breathing if the child were to lie face down in the area where the holes are.

The present child safety mattress being solid foam or natural fibres need a relatively large amount of chemical fire retardant for it to comply with the present laws. These chemicals can be harmful to humans and could be found to be a cause of cot death in infants, along with over-heating and suffocation. The present child safety mattresses also harbour dust, sweat, bed bugs, vomit and urine amongst many other bacteria that are present in the environment.

According to the present invention in one aspect there is provided a child's safety mattress comprising a box frame and an elasticated cover extending over the frame, the cover having an opening at one end and being closed at the other.

Preferably the closed end is releasably closable and press studs or the like may be used for this purpose.

The box frame can be made from straight lengths of plastic tube with three way corner connectors or plastic tube bent at correct angle; plastic tube cut to size, ultrasonically welded or glued. It is also possible to injection mould plastic to create the frame. It can be made of wood, sectional steel, aluminium or other metal.

The cover is made of fabric, woven or knitted in construction and elasticated, by means of LYCRA, rubber or like material with elastic properties. The fabric will be non-toxic, allow air to pass through with ease as well as fluid, yet be strong.

The means of securing the cover can be; press studs, VELCRO, buttons, zips, draw string or webbing straps with locking buckle, tie straps and the like.

In order that the invention may be well understood it will now be described with reference to the accompanying diagrammatic drawings, in which:

Figure 1 is a perspective view of the assembled box frame and cover; and

Figure 2 illustrates the method of putting the cover onto the frame.

Referring to the drawing the mattress comprises of a box frame 10 and a fabric cover 11. The cover has a releasable securing device 12 at one end, this case in the form of webbing strap buckle, having areas of VELCRO (Registered trade mark), and being sealed at the other.

In order to fit the cover 11 to the frame 10 the open end of the cover 11 is spread wider than the frame 10 and then pulled over the frame 10 from either end, as illustrated in Figure 2. The cover is held taut. Once the cover 11 is pulled over the full length of the frame 10 the securing device 12 must be fastened securing the cover on the frame, and to the open condition illustrated in Figure 1. To remove the cover from the frame the steps are carried out in reverse sequence.

Because of the material of the cover and the fact that it is removable from the frame the cover can be washed and the frame can be cleaned, allowing dirt, dust, and any bacteria to be removed. Air can very easily pass through the cover into the open space enabling the child to breath in any face down position. Over heating of the child is greatly reduce due to the design. Fluids pass straight through, for example; vomit, dribble and urine.

Very little fire retardant chemicals need to be used to render the cover fire retardant, hence very low levels of toxin inhaled by the child.

All of the above points can lower the chance of sudden infant death syndrome or cot death as it is more commonly known.

CLAIMS

1. A child's safety mattress comprising a box frame and an elasticated cover extending over the frame, the cover having an opening at one end and being closed at the other.
2. A child's safety mattress according to Claim 1, in which the opening is releasably closable.
3. A child's safety mattress according to Claim 1 or 2, in which the frame is of wood, metal or plastics material.
4. A child's safety mattress according to Claim 3, in which the frame is made of lengths of plastics tube welded or glued together.
5. A child's safety mattress according to Claim 3, in which the frame is injection moulded of plastics material.
6. A child's safety mattress according to any preceding Claim, in which the cover is an elasticated woven or knitted fabric.

7. A child's safety mattress in which the cover is secured to the frame by press studs, VELCRO, buttons, zips, draw string, tie straps or webbing straps with locking buckle.
8. A child's safety mattress according to any preceding Claim, in which the cover is treated with fire retardant chemicals.
9. A child's safety mattress substantially as hereinbefore described with reference to and as shown in the accompanying drawings.

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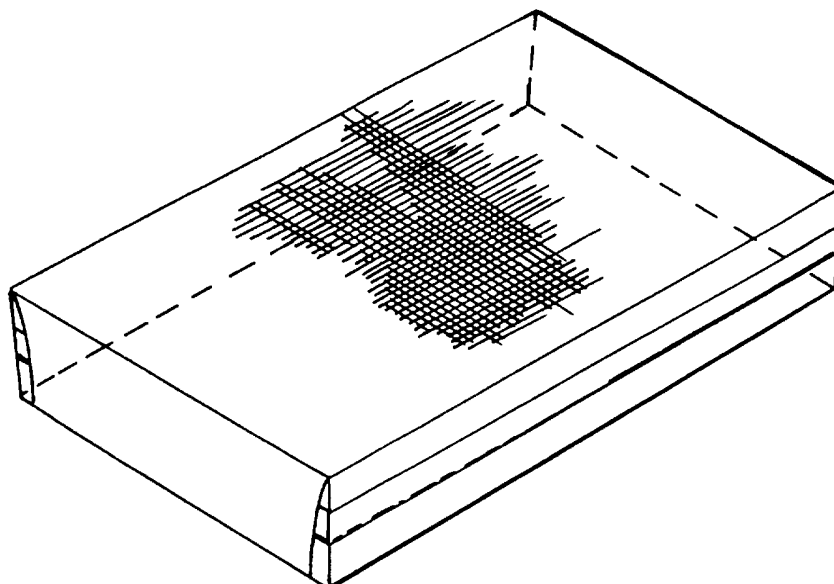


FIG. 1

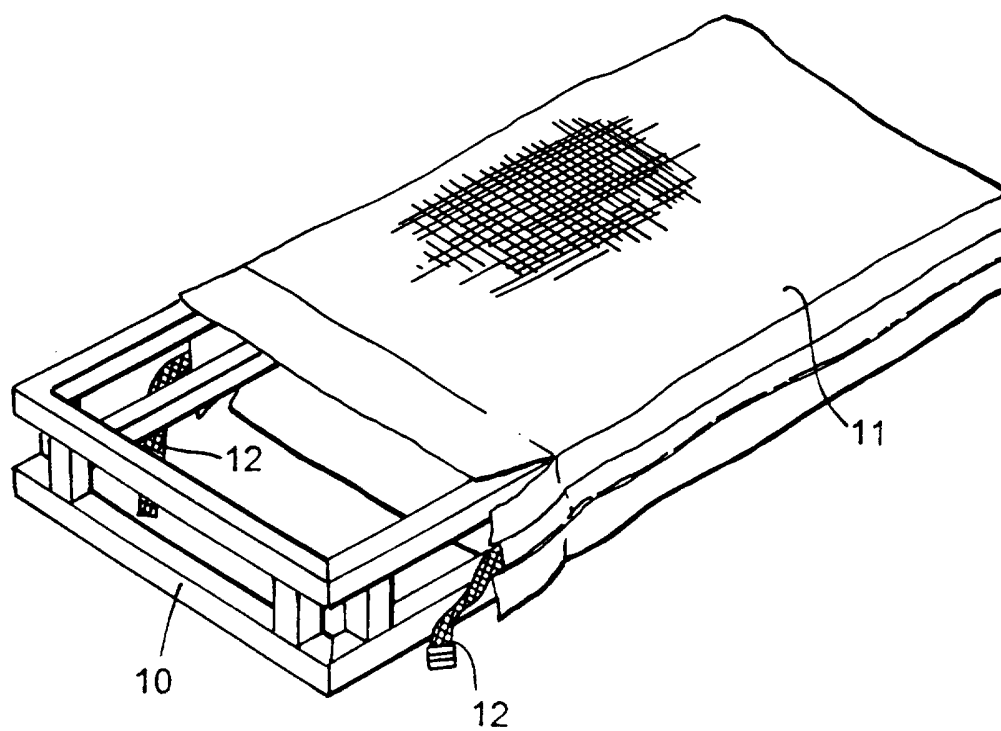


FIG. 2

INTERNATIONAL SEARCH REPORT

In national Application No

PCT/GB 97/00387

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A47D7/00 A47C21/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A47D A47C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	US 5 561 876 A (PETRUZELLA) 8 October 1996 see the whole document ---	1-9
Y	BE 411 119 A (PIMBURY) 31 October 1935 see the whole document ---	1-3,6
A	---	4,5,9
Y	GB 2 225 229 A (MELCO) 30 May 1990 see the whole document ---	1-3,6
A	---	5,7-9
A	GB 2 230 949 A (HYMAN BABYCARE) 7 November 1990 ---	
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VandeVondele, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5561876 A	08-10-96	NONE	

BE 411119 A		NONE	

GB 2225229 A	30-05-90	NONE	

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GB 2198940 A	29-06-88	NONE	
