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BEDDING DEVICE PROVIDED WITH INSULATING AND EXCREMENT COLLECTING ACCESSORIES

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Fig. 1

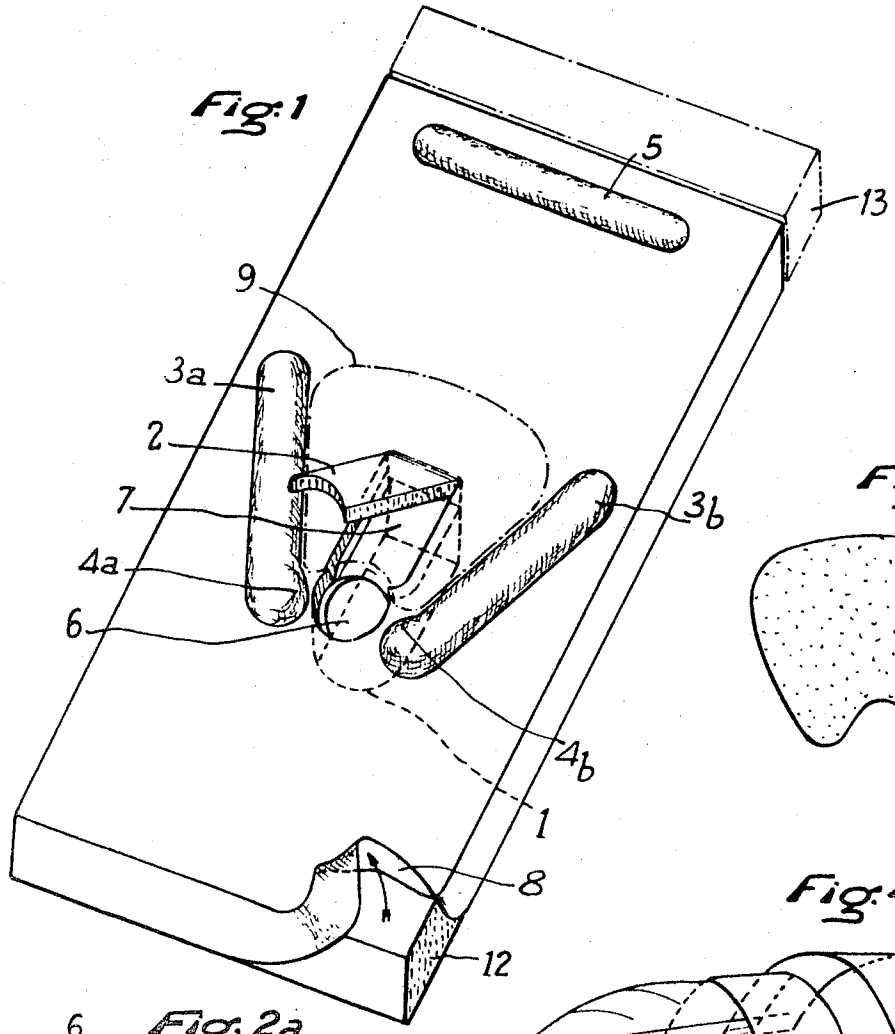


Fig. 3

Fig. 4

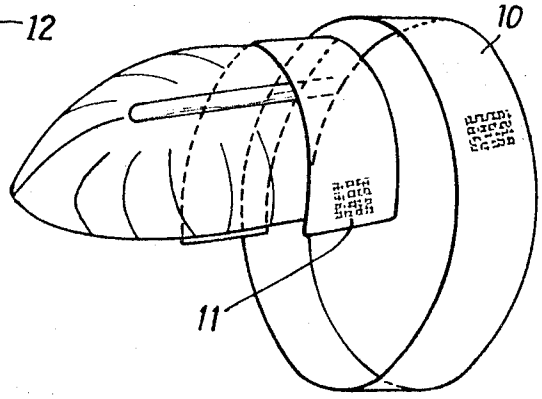


Fig. 2a

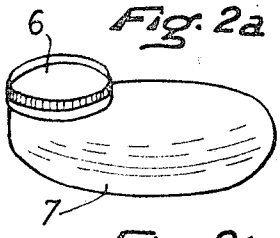
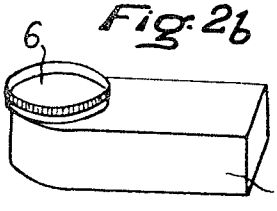
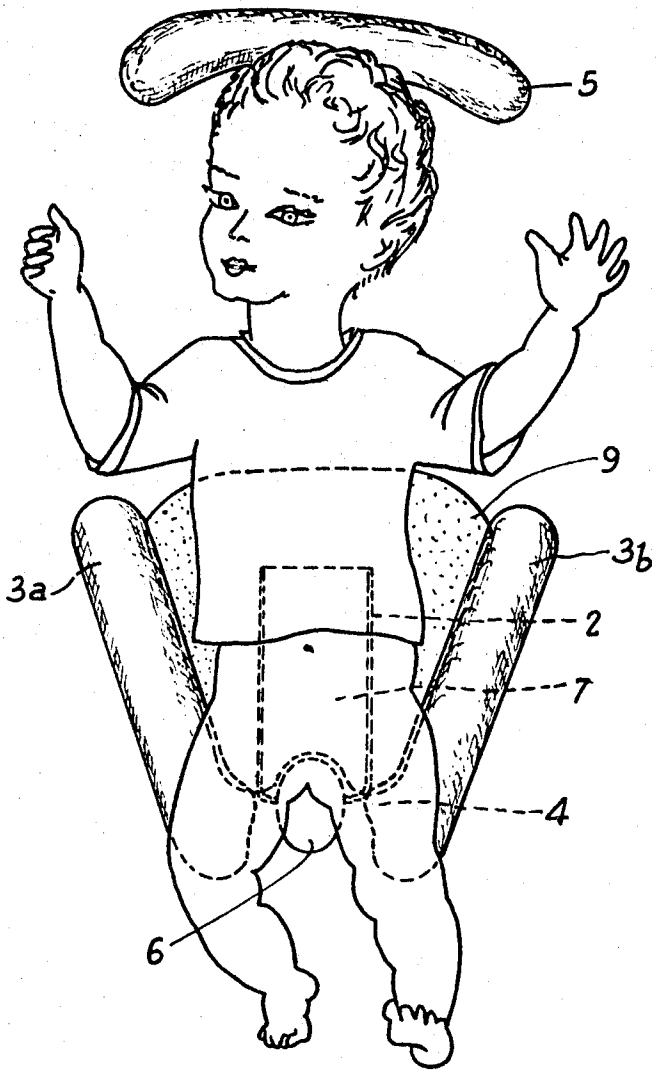


Fig. 2b



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Fig. 5



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3,444,567

BEDDING DEVICE PROVIDED WITH INSULATING AND EXCREMENT COLLECTING ACCESSORIES

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Int. Cl. A61g 7/02, 7/04
U.S. Cl. 5—90 3 Claims

ABSTRACT OF THE DISCLOSURE

This invention broadly relates to mattress adapted for insulating an infant from excrements and for collecting the latter, while placing the infant in a position which is appropriate for this purpose.

More particularly, the instant invention provides a mattress which has projecting pads adapted to maintain the adequate part of the body above the orifice of a detachable collector which is embedded within the mattress.

The present invention has for its objects a mattress provided with accessories whose purpose it is to insulate children or adults confined to bed, from their excrements and to collect the latter and place the user in a position which is appropriate for this purpose.

It is another object of the invention to provide a mattress which is adapted for maintaining the user, even in an agitated state during sleep in such a way so that he may evacuate bowels and urines without sullying himself or the mattress.

Improvement of child bed hygiene has already been proposed. However, none of the known solution provide all of the following advantages which are involved in the invention:

Comfortable, cozy, and "dry" bedding without any air drafts (contrary to the suspended draw-sheet models) with total insulation from excrements, bowels and urines which are collected in a container. The skin, therefore, remains clean and dry, without any contact with humid surfaces whether or not they are waterproof which provoke painful glutueal erythemas and cause children to cry. This is not so when perforated ordinary draw-sheets or mattresses are used which leave marks on the skin.

A position that is favorable to the morphological development of the infant. The lower limbs, free of any hindrances develop more rapidly and better by allowing natural positions thus providing excellent conformation of hip articulation. On this point, the same advantages are obtained as with babies' so-called "frog-shaped" type of clothes (reflected legs in external rotation) which is actually used in pediatrics to correct shape deflects in articular cavities.

Easy and economical nursing, through elimination of changes, and, therefore, of washing of diapers, babies' clothes, waterproof pants, etc. The part of the body which they clothe is usually uncovered. Cleaning (emptying of receptacle) is reduced to its simplest form.

It is another object of the invention to provide an insulating mattress which is economical due to the fact that its use reduces the usual purchase of diapers, babies' clothes, of waterproof or absorbent pants and cellulose and because it decreases or eliminates the purchase of anti-erythematous ointments used as a corrective measure for the humidity inherent in usual practices.

The mattress according to the invention, made from a locally waterproofed material, comprises guiding projecting pads and imprints on the surface adapted to the maintenance of the adequate part of the body above the orifice of a detachable collector, which is embedded in a recess arranged within the thickness of the mattress.

According to another feature of the invention, the surface of the mattress is provided with a detachable non-wettable coating which is permeable, and which has an increasing porosity in the direction in which gravity exercises its influence thus providing for the elimination of occasional traces of urine.

According to another feature of the invention, the use of the mattress thus constituted, by individuals of the masculine sex, is completed by the use of a shell which deflects urine and which is maintained in place by a non-wettable organ.

The invention will be better understood from the following description.

In the appended drawings:

FIGURE 1 is a perspective view of a mattress according to a preferred embodiment of the invention.

FIGURES 2*a* and 2*b* represent two forms of execution of the excrement collector with which it is provided.

FIGURE 3 is a top view of a porous rug placed on its surface.

FIGURE 4 represents in perspective, a shell which deflects urine thus completing the bedding device and

FIGURE 5 represents the position of the infant on the mattress.

The mattress shown in FIGURE 1, comprises a cavity in its central region in which is embedded an excrement collector whose neck appears in **6** and the body at **7**. The upper wall of the body **7** is covered by a trap **2** obtained by cutting out apart of the mattress whose object is to make it possible to slide the collector into the cavity. This cut-out could be replaced by a simple slit whose lips would meet.

The body of the mattress is made of a flexible and resistant material which can be seen at **12**, undergoing no permanent deformation in use. It forms, for example, a block several centimeters thick, made of latex foam, polyester, polyurethane, or other suitable material.

Two elongated protruding pads, 3*a* and 3*b*, preferably are integrally built with the mattress and symmetrically arranged with respect to the longitudinal axis thereof, being inclined at about twenty to twenty-five degrees with respect to this axis, and having for instance a length of twenty to thirty centimeters.

Parts 4*a* and 4*b* of the pads 3*a* and 3*b* form two small glutueal stop projections.

When the musculature of the infant's lower limbs are in the process of development, the latter takes the habit of leaning on his soles, which tends to separate him from the required position: this drawback is circumvented by fixing onto the mattress a detachable transversal projecting pad **5** whose purpose is to wedge his head while the infant occupies the position shown in FIGURE 5.

The orifice **6** of the bowel and urine collector, thanks to the position which the guiding pads force the infant to take, may be reduced to a surface of less than twenty square centimeters.

Collector **7** of which two forms of execution have been shown, by way of example only, in FIGURES 2*a* and 2*b*, will have a volume, for example, of seven hundred and fifty cubic centimeters, approximately; it will be advantageously made of a flexible transparent plastic material (and possibly graduated) so as to allow bowel examination.

The portion on the surface of the mattress included between the two longitudinal pads and the cavity which is to receive the collector, as well as the pads themselves are waterproofed.

A detachable cloth envelope **8** encloses the mattress;

it presents a cut-out which leaves to view the waterproofed surface included between the longitudinal folds.

A porous interchangeable rug **9** is cut out to fit the shapes of the waterproof surface which it covers. The upper face, on which the infant rest, has finer pores than the other face. It provides a smooth and tight contact, while absorbing accidental urine drops which it transmits to the collector. The location of this rug on the mattress is indicated in dashes-and-dots line in FIGURE 1.

FIGURE 4 shows a shell **11** which deflects urine, provided with an abdominal wedge **10** whose purpose it is to allow attachment to the body of a child of the masculine sex.

This shell, made of very flexible plastic material or from cloth which has been rendered non-wettable, avoids wetting of the upper sheet.

When it is desired to place the mattress in a bed of standard size, a removable transversal mattress portion of comparatively small width is juxtaposed at one or the other ends of the mattress, to adjust the length of the latter to that of the bed. This complementary mattress portion **13** will first be placed at that end of the mattress which corresponds to the feet of the infant. Then, when the infant has grown taller, portion **13** should be placed at that end of the mattress which corresponds to its head; as indicated in dotted line in FIG. 13. This enables the infant's body to be maintained in the suitable position with respect to the receptacle and the longitudinal pads, the detachable pad **5** however, being then removed and the infant's head in part bearing on portion **13**.

What we claim is:

1. A bedding device including a mattress having an upper surface and head, feet and central regions, the mattress being provided with a cavity in said central region, and a detachable excrement collector embedded in said cavity, said collector having an orifice which opens at said upper surface, and, two elongated substantially cylindrical protruding pads on said upper surface, symmetrically arranged with respect to the longitudinal

axis of the mattress and inclined so as to converge in the direction of the feet region, said pads being provided, at the end thereof which is nearer the feet region, with substantially spherical projections respectively arranged on both sides of the said orifices.

2. A bedding device as claimed in claim **1**, further including a removable transversal mattress portion adapted for being juxtaposed to the mattress at one or the other end thereof.

3. A bedding device including a mattress having an upper surface and head, feet and central regions, the mattress being provided with a cavity in said central region, and a detachable excrement collector embedded in said cavity, said collector having an orifice which opens at said upper surface, and, two elongated substantially cylindrical protruding pads on said upper surface, symmetrically arranged with respect to the longitudinal axis of the mattress and inclined so as to converge in the direction of the feet region, that portion of the upper surface of the mattress which is comprised between the said elongated pads and the said cavity being waterproofed and covered with a porous interchangeable rug the upper face of which has finer pores than the other face, the rest of the said upper surface being covered with a detachable cloth envelope.

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U.S. Cl. X.R.

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