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2,553,007

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Fig. 1.

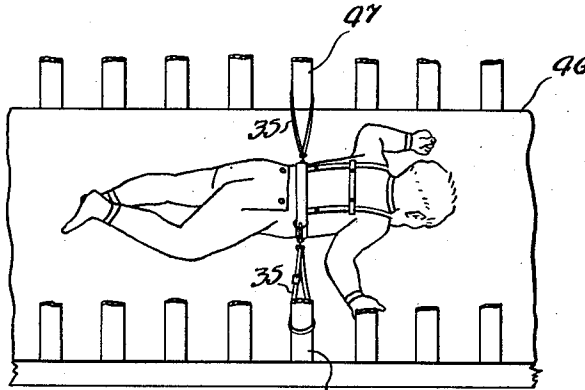


Fig. 2.

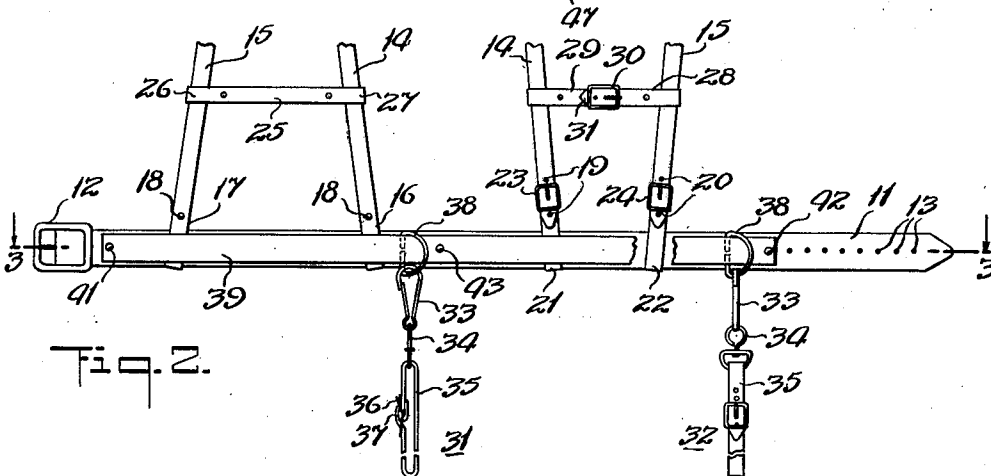


Fig. 3.

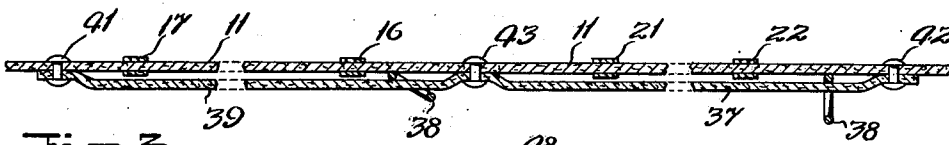
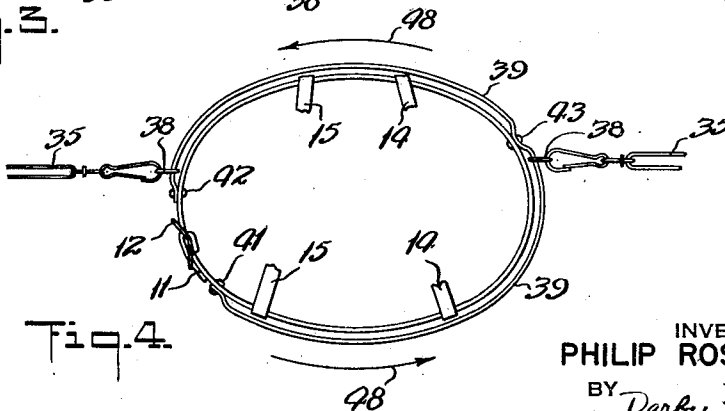


Fig. 4.



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1 Claim. (Cl. 227-49)

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The present invention relates to a harness for children adapted to be used as a safety device for keeping children, and especially infants, in a perambulator, crib or the like.

In particular, by the present invention a safety harness is provided which may be conveniently applied to and removed from the child, which can be readily adjusted to accommodate children of different sizes and which has a minimum of inconvenience and hindrance to the child, and especially permits the child to turn completely over without the removal or unfastening of the harness.

Other objects and advantages of the present invention will become more apparent from the following description of a preferred embodiment thereof taken in connection with the appended drawing, in which

Figure 1 shows a partial plan view of the harness carried by a child confined to a crib;

Figure 2 shows a developed view of the harness itself;

Figure 3 shows a cross sectional view of the harness of Figure 2 along line 3-3 thereof; and

Figure 4 shows an end view of the harness in fastened condition.

A harness according to the present invention comprises a waist encircling belt 11 having a buckle 12 at one end and perforations 13 at the other end cooperating with buckle 12, the perforations 13 in well known manner permitting the belt to accommodate different sizes of waists. A pair of shoulder straps 14 and 15 are provided which fixedly encircle the belt 11 at one end as shown at 16 and 17 by means of a loop turned back and fastened upon itself as illustrated by rivets 18. At the other end, the shoulder straps 14 and 15 are supplied with perforated ends 19 and 20. Encircling the belt 11 are a pair of closed loops 21 and 22 having buckles 23 and 24 at their ends. These buckles 23 and 24 cooperate with the perforated ends 19 and 20 to permit adjustment of the length of the shoulder straps 14 and 15. The shoulder straps 14 and 15 are joined by a back cross strap 25 formed with a pair of end loops 26 and 27, freely sliding on the shoulder straps 14 and 15. Also, there is provided a front cross strap formed in two sections 28 and 29, each terminating in a loop slidable along a respective shoulder strap. The two straps 28, 29 terminate respectively in a buckle 30 and a perforated end 31, permitting adjustment of the length of this cross strap also. Where desired, any suitable means for fixedly or movably securing the shoulder straps 14, 15 to

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the main strap 11 may be used, such as rings, hooks and eyes, snaps, rivets, sewing, etc. The buckles 23, 24 may also be located between cross-straps 25 and 28, 29 where desired.

It will be apparent that the harness, as thus far described, is adapted to be attached to the body in the manner shown in Figure 1 with the shoulder straps passing over the shoulder on either side of the head, with cross strap 25 on the back of the body and cross strap 28, 29 on the front of the body and the belt 11 encircling the waist. As shown in Figure 4, the buckle 12 is fastened at the side of the wearer, rather than at the front as in prior forms of harness. As will be seen, this is an important feature of my invention. The buckles 23, 24, 30 and 12 permit adjustment of the harness to any size child. Cross straps 25 and 28, 29 prevent the shoulder straps 14, 15 from slipping off the child's shoulders. In this way, the harness is retained snugly on the child's body. To fasten the child to a crib, perambulator, or the like, a pair of retaining devices are provided as shown at 31 and 32. Each comprises a snap hook 33 coupled to a link 34 engaging an adjustable strap 35 having a buckle 36 at one end and perforations 37 at the other end, making an adjustable length loop. The snap hooks 33 are adapted to be coupled to a pair of sliding rings 38 encircling an auxiliary strap 39. Auxiliary strap 39 is fastened to the waist encircling belt 11 at a minimum number of points. In the illustration shown, it is fastened as by riveting 41 at the end nearest the buckle 12 and by riveting 42 at the other end nearest the perforations 13. In addition, it is fastened to belt 11 by riveting at the center of the waist encircling belt, as shown at 43. One of the elements 38 engages the strap 39 between rivets 41 and 43 and the other between rivets 42 and 43. Under some circumstances, the rivet 43 can be eliminated entirely which will give much wider freedom of movement as will now be described.

As is shown in Figure 1, the two loops 35 encircle any desired portions of the support for the child illustrated in Figure 1 as a crib 46 with the loops 35 encircling slats 47 thereof. As shown most clearly in Figure 4, the mounting of the rings 38 on the auxiliary strap 39 gives a wide latitude of freedom to the child wearing the harness. Thus, in Figure 4, the harness is shown in one extreme position. However, from this position the child can rotate substantially a complete 180°, for example from lying on his back to lying on his stomach, in the direction shown

by the arrows 48 until the rings 38 engage the riveted fastenings at the other extreme position. This complete rotation from front to back is made possible by the side fastening of buckle 12, whereby one section of auxiliary strap 39 extends from one side to the other via the back, and the other similarly extends from one side to the other via the front. In this way, even though loops 35 are securely fastened down the child can turn over completely or turn back completely as he desires, without in any way impairing or diminishing his safety. The shoulder straps 14 and 15 in no way impede this movement, which is further facilitated by the reduced friction inherent in the arrangement whereby the rings 38 slide between the main belt 11 and the auxiliary belt 33, so that the clothing of the wearer does not impede the sliding action of the rings 38. This provides an extreme advantage, especially for a young infant whose parents may desire to turn him over in his crib or perambulator. The present harness permits this to be done without the necessity of unfastening the harness in any way.

Accordingly, the present invention has provided a much more convenient harness for children without in any way impairing the safety of fastening. It is to be understood that while the present invention has been illustratively described as using buckles and perforated straps other means of adjustable fastening may be substituted where deemed expedient. Likewise, while riveted fastenings have been illustrated as a practicable and simple type of fastening, other kinds of fastening such as screws, snaps, loops and hooks, stapling or sewing or any desired type of fixed or removable fastening may be used. The straps and belts just described may be made of leather, cloth, plastic material or any other desired material suitable for the purpose. It will also be understood that while auxiliary belt 39 has been shown as in one piece, it may, of course, be formed in two separate shorter pieces, each fastened to the waist belt 11 at both ends, one end being adjacent one end of the waist encircling belt 11 and the other end being adjacent the center of belt 11. Especially when leather is used, this permits the use of the cheaper short lengths of strap.

According to one important aspect of the invention the rivet 43 or whatever fastening means is substituted therefor may be entirely omitted. When this is done, the degree of freedom afforded to the child wearing the harness is increased still further over that shown in Figure 2, since the rivet 43 is then no longer present to provide a stop for movement of rings 38. It will be understood that while it is preferred to use the above improved safety harness on a child, it may be used where necessary on children or adults or even animals or inanimate objects, wherever the advantage of the use of such restraining means are desired with a minimum of obstruction to the freedom or action of movement of the wearer.

According to another modification of the present invention, the auxiliary strap (such as 39) or its equivalent two-strap arrangement described above, may be secured inside the waist-encircling strap in the manner already described. In this case, the auxiliary strap (or straps) will carry the shoulder strap loops, such as 16, 17, 21, 22, and the main strap 11 will carry the rings 38.

While the invention has been described relative to shoulder straps, it will be understood that

other straps, such as crotch straps, may be used with or in place of shoulder straps, or all such straps may be omitted.

When desired, the auxiliary strap 39 or its two sections as described above may be made removable, as by use of snap fasteners, hooks and eyes or loops, in place of rivets 41, 42, 43. In such a case, the buckle 12 may be moved to the front of the waist strap 11, although such an arrangement is not preferred because of the extra trouble in applying and removing the harness.

It will be understood that many other minor modifications of the invention just described may readily be conceived without departing from the spirit of the invention. Accordingly, the above description is intended to be illustrative only and not to constitute a limitation upon the invention which is defined solely by the appended claim.

What is claimed is:

A safety harness for confining a child, or the like, comprising a waist-encircling belt having a fastening means therefor adapted to be positioned at the side of the wearer, an auxiliary strap fastened to said waist encircling belt on the outside thereof, at points adjacent the ends of said belt and also at a point substantially midway between the ends of said belt, a pair of shoulder straps each having a front end and a back end slidably mounted on said belt, the front pair of ends of said shoulder straps being positioned along said belt between one end fastening point of said strap and the intermediate fastening point of said strap and the other back pair of ends of said shoulder straps being slidably mounted on said belt between said intermediate fastening point and the other end fastening point of said auxiliary strap, whereby said belt fastening means is worn at the side of the wearer, a pair of rings slidably engaging said auxiliary strap, one ring being located between one end of said auxiliary strap and said intermediate fastening point thereof and the other ring being located between the other end of said auxiliary strap and said intermediate fastening point, and respective side fastening means removably attached to said rings for holding said harness to fixed points, said side fastening means comprising respective removable hook means engaging each of said rings and a fastening strap secured to each said hook means, whereby substantially full freedom of turning from a back recumbent position to a front recumbent position in one direction is afforded to the wearer of said harness without impeding the ready adjustment of said shoulder straps and even though said side fastening means may be secured to fixed objects.

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