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SAFETY HARNESS FOR CHILDREN

Filed Sept. 7, 1939

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

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SAFETY HARNESS FOR CHILDREN

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Application September 7, 1939, Serial No. 293,760

2 Claims. (Cl. 237—49)

This invention relates to safety harness and the like for children and infants and more particularly to harness of this character which includes in combination harness means for holding or receiving the body of the wearer, and an improved holding or attaching safety strap or straps for connection to the body harness. Harness for children and infants has been in common use for various purposes, but the prior designs thereof have been directed primarily along the lines of improvement of harness for specific purposes. Accordingly, the safety devices which have been available in the past, while suited for specific uses, have not been employed in a number of capacities. It is therefore the principal object of the present invention to provide an improved harness for infants and children which may be employed with equal facility for numerous uses and exhibits in its application to each purpose a maximum efficiency and safety while being comfortable to wear and convenient to manipulate.

Another object is to provide an improved body embracing harness which securely holds the child or infant while being comfortable to wear and attractive in appearance.

Another object is to provide a harness which is adjustable to fit children and infants of different ages and in which the adjustments are located out of range of the child's hands so as to prevent loosening or release of the harness while in use.

A further object is to provide in combination with a body harness of the character mentioned, an improved holding or attaching strap which may be variously connected to the body harness so as to enable the single harness and strap combination to be cooperatively employed in numerous ways for many purposes.

A still further object is to provide an adjustable harness and strap combination of the character mentioned which is relatively simple in design and construction and inexpensive to manufacture. Other objects and advantages will become apparent from the following detailed description of a suitable embodiment of the invention made in connection with the accompanying drawings, in which:

Figure 1 is a perspective view, somewhat diagrammatic and on a reduced scale, of my improved child's or infant's safety harness and strap combination;

Figure 2 is a somewhat diagrammatic perspective view showing my new harness when used to tether a child or infant;

Figure 3 is a perspective view, diagrammatic in character and on a reduced scale, showing the application of my harness and strap combination to hold or support a child or infant learning to swim;

Figure 4 is a diagrammatic perspective view on a reduced scale showing the application of the harness combination of my invention to fasten a child in the front seat of an automobile;

Figure 5 is an illustration similar to Figure 4 showing a modification of the use of the invention for fastening the child in an automobile; and

Figure 6 is another diagrammatic perspective view illustrating the use of the harness and strap combination of the present invention for teaching a child or infant to walk.

Briefly, the present invention comprises an improved body harness having a waist band and shoulder straps in combination with an attaching or holding strap which is capable of being connected to the body harness in numerous ways and in various arrangements. Referring to the drawings by numerals of reference which indicate like parts throughout the several views, the waist band of the body harness is indicated at 1, while the shoulder straps are indicated at 2 and 3, and the attaching strap is indicated at 4. The various straps and bands of the harness may be made of any suitable flexible material, such as rubber, leather and the like, or composition material. Preferably, however, fabric webbing made of cord or linen fibers is employed. Material of this character, while being tough, flexible and strong, readily lends itself to cleaning by washing with soap and water, gasoline, or naphtha, so that it may be maintained in a sanitary condition and attractive in appearance. Further, although the various bands and straps are shown in the drawings as being of approximately the same width, it is contemplated that if desired, the waist band 1 may be made wider than the shoulder straps 2 and 3, while the attaching strap 4 may be made narrower or wider than shown, or of different length relative to the size of the body harness members. The particular size and strength of the different straps and bands may be varied as desired in order to obtain the requisite strength and durability of the various parts of the harness.

The waist band 1 has secured on one end thereof a buckle 5 which receives the other end of the band which is provided with a multiplicity of holes 6, so that the circumference of the band may be adjusted to fit children and infants of different sizes or ages. This band is to be placed around the body and under the arms of the infant (not shown), preferably slightly above the infant's waist. As will later appear, the band
is positioned so that the buckle 5 is located in the middle of the back of the wearer so as to be substantially inaccessible to the infant, making it relatively impossible for the wearer to unfasten the buckle and release himself from the harness.

The shoulder straps 2 and 3 are connected to the front portion of the waist band 1 at spaced points 1 and 8. These straps extend upwardly from the waist band in approximately parallel relation to one another in such fashion as to be disposed over the shoulders of the wearer. In the back of the wearer the straps 2 and 3 cross one another at 9 without being attached together. Thus, the crossed shoulder straps can have relative sliding or shifting movement with respect to one another, so that the harness does not bind or cut the shoulders of the wearer and is considerably more comfortable than if the shoulder straps were connected together in back of the wearer. Each of the shoulder straps is looped or folded over upon itself in the back of the wearer, as indicated at 12, a ring 10 being slidingly received in the loop, while the ends of the straps are connected to slide fasteners 11 which frictionally grip the main parts of the shoulder straps so as to vary the effective length thereof by increasing the length of the loops 12. Each of the rings 10 are connected by relatively short straps 45 to spaced apart points 16 and 17 of the waist band in the back of the wearer and on opposite sides of the buckle 5. Preferably, the distance between the points 1 and 6, where the shoulder straps fasten to the waist band in the front of the wearer, and the distance between the points 16 and 17 on the other side of the wearer, this arrangement of the shoulder straps relative to the waist band 1, while increasing the security with which the harness embraces the body of the wearer, also improves the comfort with which it is worn. A chest band 18 is connected to the shoulder straps 2 and 3 at 19 and 20, respectively, above the points of attachment of the shoulder straps to the front of the waist band 1. The chest band is disposed in spaced substantially parallel relation to the front part of the waist band and prevents the shoulder straps from shifting or slipping off the shoulders of the wearer.

In attaching the various straps and bands of the body harness to one another at the points indicated, various means may be employed such as staples or grommets. Preferably, however, the attachment is made by stitching the straps and bands together since this method avoids the possibility of rusting which might occur if metallic fasteners were used. At the same time avoids the possibility of injury to the wearer by cutting and scratching.

Attaching loops or rings 21 and 22 are connected to the shoulder straps 2 and 3, respectively, at the portions thereof which pass over the shoulders of the wearer. A preferred method of attaching each of the loops or rings 21 and 22 to the shoulder straps is by means of a looped or folded strip 23 of fabric or like material which is stitched or otherwise fastened to the shoulder strap. The attaching loops or rings are disposed in the bights of the strips 23 and are normally disposed to lie flatwise against the shoulder straps toward the rear of the wearer's shoulders just over the tops thereof and above the crossing point 9 of the shoulder straps.

An attaching loop or ring 24 is secured to the waist band 1 adjacent the buckle 5 so as to be normally disposed approximately in the middle of the back of the wearer's back. Any suitable material may be used for the several attaching loops or rings, although metal is to be preferred because of its strength. Desirably, the loops or rings may be covered with a material such as leather or the like to improve their appearance.

The attaching strap 4 may, as previously mentioned, be made of the same type of material as is used for the shoulder straps 2 and 3 and is attached to the shoulder strap 1 of the body harness. For certain uses, however, it may be desirable to have the attaching strap of greater strength, in which case fabric or strip material of larger size than is used in the shoulder straps or waist band may be used.

At the opposite ends of the attaching strap are affixed snap fasteners 26 and 27 which include spring latches 28 permitting the fasteners to be snapped over the rings of the body harness. Any suitable means may be employed for connecting the fasteners 26 and 27 to the attaching strap, although I prefer to pass the ends of the attaching strap through rings 29 on the fasteners, form bights in the strap ends, and then stitch the ends of the strap to the body thereof. This arrangement is extremely useful in connecting the attaching strap to the harness in various positions or arrangements so that the device may be used for numerous purposes according to the age and particular requirements of the child or infant.

A ring or loop 36, which may be similar to the loops or rings on the body harness, is connected by a looped strip 31 to the attaching strap 4. This ring or loop is preferably spaced relatively close to one of the fasteners on the ends of the attaching strap, in this instance the fastener 26, and is of sufficient size to permit the passage therethrough of the fastener 27.

One of the uses to which safety harness of the character contemplated by the present invention may be put is to retain control over a child when walking or playing. Used for this purpose, the attaching strap 4 is connected by the fastener 27 to the loop or ring 24 in the rear of the waist band 1 and the fastener 26 is connected to the loop or ring on the strap 4 to provide a loop 32 which may be placed about the wrist of the person having custody of the child. Since the strap is fastened to the shoulder band of the body harness in the middle of the back, the child's shoulders and arms are free for movement, and the harness is not an impediment to his actions except as the strap 4 limits his sphere of activity. Additionally, the convenient loop 32 in the free end of the strap 4 permits the person having charge of the child to retain control with the loop 32. If desired, the loop 32 may be placed about an upright post or tree, indicated at 33, Fig. 2, the fastener 26 permitting the loop 32 to be opened and closed as desired without disconnecting the attaching strap 4 from the body harness. Thus the child may be tethered for play over a limited area, leaving...
the person in charge of the child to his or her own devices.

Persons who wish to teach their children to swim may employ the harness of the present invention as illustrated in Fig. 3. In this case the fastener 26 is passed through the shoulder loops or rings 21 and 22 and snapped over the loop or ring 30 of the attaching strap 4. The fastener 27 may be connected to the waist band loop or ring 24, providing a loop 34 by means of which the child may be supported or held up in the water while learning to swim. By arranging the attaching strap 4 so that both of the shoulder loops or rings 21 and 22 are received on the loop 32 causes the shoulder loops or rings to be drawn together by tensioning of the attaching strap 4. Accordingly, the child supported by the harness while learning to swim is given a feeling of security due to the fact that each time a person holding the strap 4 pulls upwardly on the same shoulder straps are drawn together, tightening the body harness, and the child feels that the straps are less apt to slip off his shoulders. Since the strap 4 may be attached to both the shoulder portions and waist portions of the body harness, the child learning to swim is supported in the water until he learns to maintain his own equilibrium. After progress has been made in teaching a child to swim, the fastener 21 may be disconnected from the waist band loop or ring 24, as shown by the broken lines 35. Thus the instructor in charge of the child learning to swim retains one end of the attaching strap 4, while the loop 32 thereof passes through the shoulder loops or rings 21 and 22, so that the child's head may be kept above water.

Difficulty is often experienced in keeping children on the seat of an automobile while motoring. By arranging the attaching strap 4 as shown in Fig. 4, the harness of the present invention may be used for securing a child on the front seat of an automobile and for preventing the child from falling out the doorway should the door accidentally become unlatched. The child or infant is placed in the body harness in the usual manner and positioned on the front seat (not shown) of an automobile. The attaching strap 4, after having been passed under robe or coat rail 35, customarily located across the back of the front seat of an automobile, is passed upwardly and across the top of the front seat and the fasteners 26 and 27 are connected, respectively, to the shoulder attaching loops or rings 21 and 22. This arrangement of the harness permits the infant to move sidewaysly or laterally across the front seat to various positions, the loop or bight in the strap 4 sliding longitudinally along the rail 35. In the event the vehicle should be brought to a sudden stop, the attaching strap 4 checks the forward movement of the child or infant due to his momentum and prevents his being thrown against the windshield or dashboard of the car. Also, if one of the doors in the car should accidentally become unlatched and swing open, the strap prevents the child from falling out the open doorway. Another advantage of the arrangement shown in Fig. 4 is that children who want to slouch in the seat are restrained therefore compelled to sit upright, thus inducing proper posture on their part.

For children who are to be permitted to stand or sit in the front seat of an automobile the arrangement shown in Fig. 5 may be used. In this modification or adaptation of the invention it is preferable that the attaching strap 4 be some-
What I claim is:

1. A child's safety harness of the character described comprising in combination a waist band having separable ends which connect in the rear of the wearer, shoulder straps which cross one another in back of the wearer and are connected to the band at spaced apart points, an attaching loop secured to each strap adjacent the wearer's shoulder, an attaching loop secured to the band adjacent the connected ends thereof, and a flexible strap having at each end thereof fastening means selectively connectable with all of the loops, said strap having an attaching loop adjacent one end connectable with one of the fastening means.

2. A child's safety harness of the character described comprising in combination a waist band having separable ends, shoulder straps connected to the band at spaced apart points, an attaching loop secured to each strap adjacent the wearer's shoulder, an attaching loop secured to the band in the middle of the wearer's back, a flexible strap having at each end thereof fastening means selectively connectable with all of the attaching loops, one of said fastening means being adapted to be passed through a number of the attaching loops for threading the flexible strap therethrough, and an attaching loop on the strap adjacent one end thereof and connectable with one of the fastening means.

3. A safety harness of the character described comprising in combination a waist band having separable ends, connecting means for said band ends, a pair of shoulder straps connected to the band at spaced apart points, an attaching loop secured to each of said shoulder straps so as to be positioned adjacent one of the wearer's shoulders, an attaching loop secured to the band so as to be positioned adjacent the middle of the wearer's back, and a flexible strap having at each end thereof fastening means connectable with all of the attaching loops, said strap having an attaching loop adjacent one end which is connectable with one of the fastening means.

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