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RESTRAINING APPARATUS

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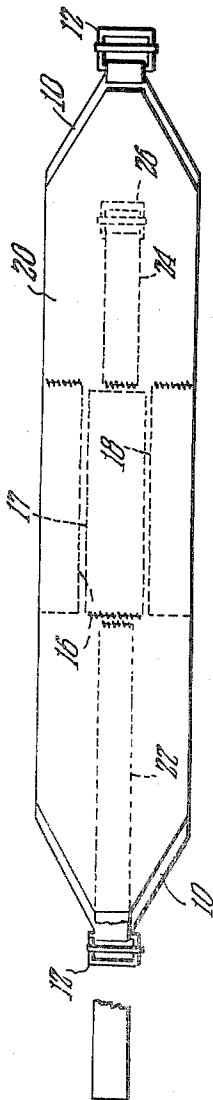


Fig. 1.

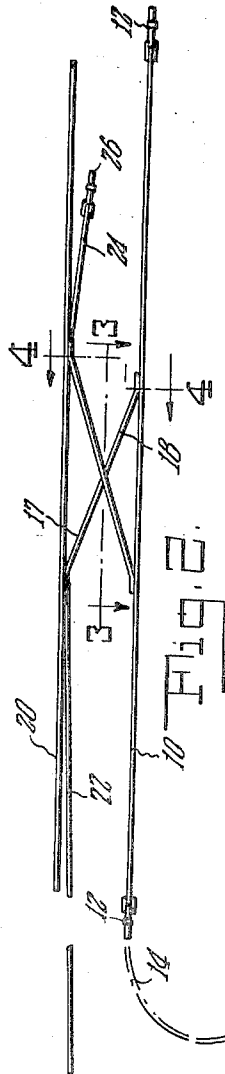


Fig. 2.

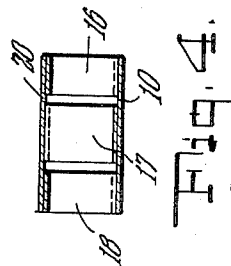


Fig. 3.

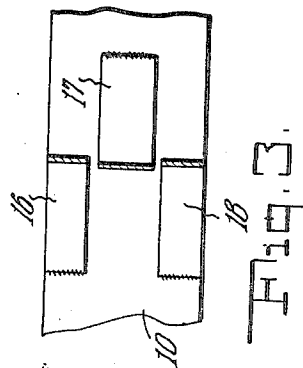


Fig. 4.

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RESTRAINING APPARATUS

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1 Claim. (Cl. 128—134)

My invention relates to new and useful improvements in structural refinements in a harness for restraining infants and is directed more particularly to the provision of a harness of the character herein described which may be conveniently and effectively employed for sustaining an infant in position in a crib or on a bed, and to prevent him from climbing about and/or accidentally falling from the crib or bed.

The invention further contemplates a body restraining device not only for infants but also for adults, which device is of the abdominal restraint type and is adapted to confine a person, such as a patient, in a bed without unduly restricting the movements of such person and without causing him any undue comfort. That is, the device is innocuous in appearance and renders the patient oblivious to the fact that a restraint upon his leaving the bed is actually in effect, since the same presents no substantial restraint to his freedom of movement within the bed.

It is the principal object hereof to provide an infant embracing harness in the form of a belt having opposite end portions adapted to be connected to the adjacent sides of the crib or bed so as to sustain an infant in position on the mattress thereof.

It is another object of the invention to provide a simple harness which may be detachably applied to a bed or crib, having a body attaching part secured to an infant in such a manner as to permit the infant to have a certain freedom of movement within the bed or crib and which is nonetheless limited so as to prevent the baby from accidentally falling or climbing from the bed. With this device, the infant is allowed a substantial range of movement, yet, at the same time, his movement is sufficiently limited as to prevent the child wearing the harness from becoming injured by accidentally falling from the bed.

In outward appearance, the restraint device of this invention is made substantially entirely of fabric, which blends into the bed clothing with no visible straps or buckles which may act as a disturbing factor to the mental well being of the user. The fabric girdle is conveniently adjustable in its girth in order to adapt it to a comfortable encirclement of the user therein, regardless of his size.

It is a further object hereof to provide a rugged construction which may be fabricated at relatively low cost from few parts and which may be laundered repeatedly without substantial wear so that it is characterized by a capacity for an extended usage period.

With these primary objects in view, it is another object of the invention to provide a construction of the above described character in which the number of operating parts is greatly reduced and which is compact in accordance with the demands and desires of manufacturers and purchasers alike and which is distinctive in its appearance, practical in its value, reliable in its operation, and efficient in its use.

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It is still a further object to provide a device which is constructed of relatively simple parts which are adapted to be readily assembled and which when once assembled are positively and securely retained in operative relationship and which cannot be readily separated from each other, either accidentally or otherwise.

Other prime objects of my invention include; first, the securing of a higher degree of accuracy and greater degree of variety in the manner of work performed therewith than has heretofore been possible with prior devices known in the art; second, the attainment of a higher speed of construction and assembly of the device due to its simplification of design and its unique composition of parts; third, the attainment of a flexibility or a capability of adjustment by which persons of various sizes may be accommodated by means of the same device; fourth, the achievement of a greater ease in adjustment and repairs; fifth, the provision of an improved harness or restraint which may be made more economically and with fewer operations in the manufacture of its parts, as well as in the assembly of the same, than prior devices known in the art; sixth, the provision of a construction which may be readily installed with respect to the various purposes for which it is intended, and seventh, the provision of such other improvements in and relating to harness or restraints of the above referred to type as are hereinafter described and claimed.

Further objects and advantages of my invention will become apparent as the following description proceeds, and the features of novelty which characterize my invention will be pointed out with particularity in the claim annexed to and forming part of this specification, reference being had to the accompanying drawing forming a part of this specification, wherein like reference characters designate corresponding parts in the several views.

In the drawings:

Fig. 1 is a top plan view of the device of the invention;

Fig. 2 is a side elevational view of the device shown in Fig. 1 with the parts in a somewhat expanded relationship;

Fig. 3 is a sectional view on the line 3—3 of Fig. 2; and Fig. 4 is a sectional view on the line 4—4 of Fig. 2.

In the following description and claim, various details will be identified by specific names for convenience. These names however are intended to be as generic in their application as the art will permit.

Referring now to the drawing more in detail, and referring more particularly to the preferred form of my invention selected for illustrative purposes, I have shown a primary strap 10 which is preferably composed of canvas, leather or other flexible material.

Said strap is a wide flexible band of fabric which may be of cotton or other textile material and preferably of a white color resembling the sheets of the bed clothes which overlie the top of the bed.

The strap 10 is provided with fasteners 12 or buckles, clasps or the like at its opposite ends by means of which fastening straps 14 may be adjustably connected to the strap 10. The opposite free ends of the fastening straps 14 may be secured as by other fasteners (not shown) or the like to the side rails of a crib or bedstead.

It will be understood that, if desired, the opposite ends of the primary strap 10 can be elongated, which elongations can serve the function of the said fastening straps 14.

Also, if desired, one of the fastening straps 14 may be of such length as to be adapted to be encircled around the mattress and/or the bedstead.

To the primary strap 10, intermediate its ends, I attach oppositely disposed rolling tapes 16, 17 and 18 by means of stitching.

The tapes are arranged alternately, tape 17 extend-

ing in one direction and being disposed between tapes 16 and 18 extending in the other direction.

The free ends of the tapes 16, 17 and 18 are secured by stitching to a body band or girdle 20, which band is of a substantial width and is composed of a strong fabric.

Preferably said body band is of the same width as the band 20 and is arranged to encircle the abdomen of a user after he is disposed thereon.

It will be understood that the outermost tapes 16 and 18 extend in one direction and are secured to the body band 20 beyond its midpoint on one side thereof (or the right side as shown in Fig. 2) and that the tape 17 extends in an opposite direction and is secured to the body band beyond its midpoint on the opposite side thereof (on the left side as shown in Fig. 2).

This permits a free movement of the body band relative to the primary strap in either direction, the sets of rolling tapes (tapes 16 and 18 comprising one set and tape 17 comprising the other set) in effect overlapping and providing a maximum movement, the rolling movement in one direction being limited by tapes 16 and 18 and in the opposite direction by tape 17.

It will be understood that the free ends of the body band 20 overlap each other when assuming the said body encircling position. That is, the member 20 is preferably arranged to encircle the abdomen of a user after the user is disposed thereon by bringing the free ends of the member 20 to the top of the user.

Stitched to the body band 20, I preferably provide a pair of fastening straps 22 and 24 having free ends which may be brought into locking engagement with each other by means of a buckle 26 when the opposite free ends of the body band 20 are brought around the waist of the user in a body encircling manner.

It will be appreciated that the harness is of simple construction and further that it contains no projecting metallic parts which might cause discomfort to the user. The particular construction of the overlapping, rolling tapes enables the user to have a very substantial rolling movement in either direction and also a slight longitudinal movement.

When the device is in use, the primary strap 10 is united to the bed through the fastening of the straps 14 to the side rails, mattress, or springs, according to what may be most suitable and convenient.

It will be fully appreciated that, when the body band 20 is applied, the user is free to roll in either direction laterally from the center of the bed, but that the rolling tapes 16, 17 and 18 inclusive are so proportioned and so arranged with reference to the remainder of the structure and relative to the user that the freedom of movement is limited so as to prevent the user from rolling or falling from the bed.

The user is unconscious of restraint and yet safe and free from irritation and annoyance because he is thereby permitted the rolling movement which the tapes or rolling straps permit. The device thus holds the user in its bed in such a manner that all liability of its falling out, or its rising from a recumbent position will be prevented, and yet with the positive assurance that the freedom of moving its head, arms and legs will not in anyway be interfered with.

It will furthermore be appreciated that in using this device, the user may be removed from the harness in case of a fire or other emergency by removing the single fastener or clasp 26 employed for holding the body band around the user's body.

The device is constructed so that there is no danger of the tapes or straps strangling the user, and further, it is united to the user at points where no pressure is permitted on any vital organs.

The invention is not limited in its application to the details of construction and arrangement of parts illustrated in these drawings, since the invention is capable of other embodiments. Too, it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

Although particular embodiments of my invention have been described, it will be understood by those skilled in the art that the objects of the invention may be attained by use of constructions different in certain respects from those disclosed without departing from the underlying principles of the invention. I therefore desire by the following claim to include within the scope of my invention all such variations and modifications by which substantially the results of my invention may be obtained through the use of substantially the same or equivalent means.

Having thus described my invention, what I claim is:

A restraining device for securing the body of a person to an object comprising in combination, an elongated flexible primary strap adapted to be secured to an object, an elongated flexible girdle for encircling the body of a person over the primary strap, said primary strap and girdle being substantially of the same transverse width and having corresponding opposite ends, a pair of elongated flexible rolling straps between said primary strap and girdle having outer longitudinal edges aligned with corresponding longitudinal edges of said primary strap and girdle and arranged to provide a transverse space therebetween, a third elongated flexible rolling strap in the space between the straps of the pair thereof, said straps of the pair thereof and said third strap having corresponding opposite ends, one end of the rolling straps of the pair thereof being secured to the primary strap inwardly of one end thereof and a corresponding end of the third rolling strap being secured to the girdle inwardly of a corresponding end of said girdle, opposite ends of the straps of the pair thereof being secured to said girdle inwardly of an opposite end thereof and a corresponding end of the third strap being secured to the primary strap inwardly of a corresponding end thereof, and relatively narrow elongated flexible fastening straps having inner ends secured to the inner side of the girdle adjacent the securement of the straps of the pair and the third strap thereto and having free end portions extending outwardly in opposite directions, said free ends of the fastening straps adapted to overlie said girdle in encircling the body of a person.

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