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REFLECTIVE SAFETY BAND

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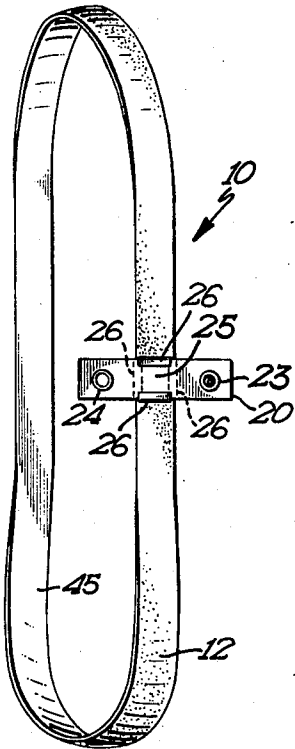


FIG 1

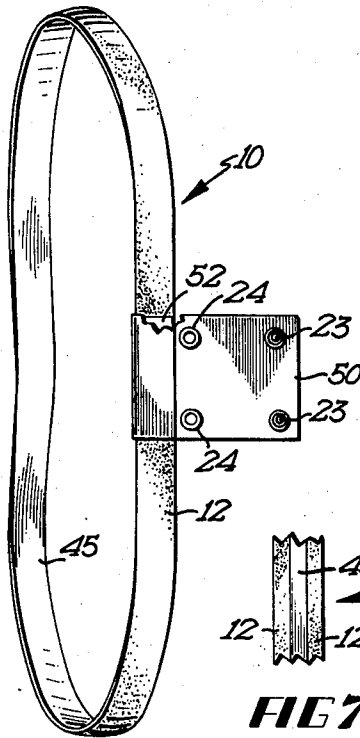


FIG 2

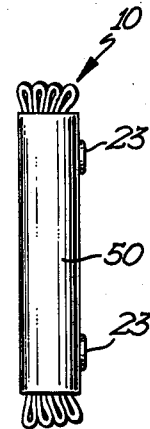


FIG 4



FIG 7

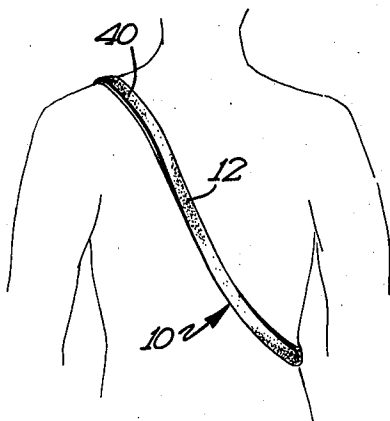


FIG 3

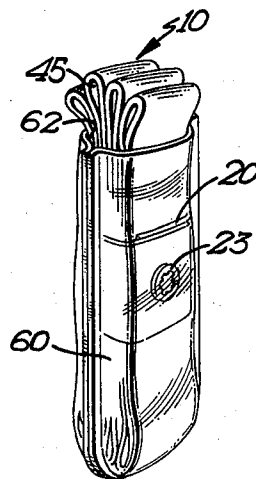


FIG 6

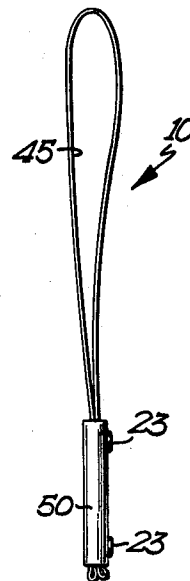


FIG 5

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REFLECTIVE SAFETY BAND

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11 Claims

ABSTRACT OF THE DISCLOSURE

A signal warning device worn by pedestrians, cyclists, or children playing in or around roadways which incorporates a continuous loop of flexible fabric material having a reflective surface and/or a luminescent surface on opposite sides thereof and with a cover strip attached thereto which may be utilized for shortening or storing the continuous loop of fabric material when not in use.

This invention relates to safety warning devices and more particularly to an improved safety warning device normally worn by a person to give an indication of his presence during nighttime and twilight hours when visibility is such that the presence of the pedestrian would not be clearly evident.

The problem of providing a visual indication of the presence of a person, such as a pedestrian or a bicycle rider, walking along or cycling along or across streets or roadways, or adjacent the same is an old and recognized one. Prior signaling devices of this type have been utilized which incorporate reflective surfaces on belts or straps and include medallions, shields, and the like. Such surfaces have been made of reflective and/or luminescent materials. These prior devices are all of the type that are not readily carried or stored and hence do not lend themselves to usage by persons moving under such danger conditions. In particular, such prior devices have been cumbersome such as not being practical for use on children or by cyclists and do not lend themselves to ready storage or packaging so as to be readily carried by a person when not in use.

The improved safety warning device of the present invention is directed to a simplified warning device which may include a reflective and/or luminescent surface on the sides of the same and which incorporates a simplified packaging arrangement such that it may be readily carried when not in use, opened, and adjusted in length for usage and one which is not cumbersome such as to prohibit movement of the wearer. This improved safety warning device includes a continuous loop of a fabric material having a reflective surface on one side thereof and may incorporate a luminescent surface on the other side thereof or a narrow strip of luminescent material positioned over the reflective surface to expose both luminescent and reflective surfaces. It further includes a cover structure or strip connected thereto by means of which the loop may be shortened to go around or across the shoulders of the wearer and be adjusted for proper length without being cumbersome or restrictive with respect to the wearer's movements. Further, the cover strip will be used to package or maintain the loop in assembled relationship such that it may be readily carried in a pocket or purse when not in usage. It further provides a positive reflective surface for nighttime usage and a luminescent surface to provide ready visibility or reference in twilight hours. As such, it is particularly applicable for usage by children playing in or around streets or cycling in areas where their presences might not be readily discernible by occupants of vehicles approaching the same.

Therefore it is a principal object of this invention to provide an improved safety warning device.

Another object of this invention is to provide in an improved safety warning device a structure which will incorporate reflective and luminescent surfaces for varying conditions of darkness.

Another object of this invention is to provide an improved safety warning device which is readily adjustable in length to fit a wearer and which is not cumbersome or restrictive on the wearer's movements.

A further object of this invention is to provide in an improved safety warning device a means for packaging the same which is self-contained with the warning device such as to make it readily storable and capable of being carried on a person without inconvenience.

A still further object of this invention is to provide in a safety warning device a protective cover and a storage cover which is self-contained with the warning device so as not to be detached therefrom and lost.

These and other objects of this invention will become apparent from a reading of the attached description together with the drawings wherein:

FIGURE 1 is a perspective view of a second form of the improved warning device;

FIGURE 2 is a perspective view of a second form of the improved warning device;

FIGURE 3 is a plan view of the improved warning device in position on a person;

FIGURE 4 is an elevation view of the warning device in assembled or storable position;

FIGURE 5 is an elevation view in section of the safety warning device in a partially folded position to show how the loop may be shortened to fit;

FIGURE 6 is a perspective view of the warning device in a folded positioning and inserted into an envelope; and

FIGURE 7 is a fragmentary view of the continuous loop of the warning device with reflective and luminescent surfaces on the same side thereof.

My improved safety warning device is shown in FIGURE 1 in connection with one embodiment or version of the same. It incorporates a loop of flexible fabric material, as indicated in 10, which has a reflective surface 12 on one side thereof. The loop is formed from a strip of material which is sewn together at the ends thereof or otherwise suitably secured together. The opposite side of the surface will be the normal backing for the strip or reflective material which may take varying forms and may be of the type sold under the trade name of "Scotch Lite" by the 3-M Company, Inc., St. Paul, Minn. The continuous loop has attached thereto a cover strip 20 the width of which may vary with the length being at least three times the width of the strip of material forming the continuous loop. The cover strip may be formed of a Scotch Light material or may be of the nonreflective type, as desired. It includes component parts of a snap type fastener 23, 24 at the extremities of the same such that the cover strip may be folded around the extent of the continuous loop 10 and snapped thereon to enclose the loop. The cover strip may be secured to the continuous loop through any suitable means, such as sewing or through a metal backing plate 25 having flanges 26 folded over portions of the cover strip. The cover strip will be attached to the continuous loop at any particular point and extends normal to the extent of the same, so that the ends may be folded over and completely cover the continuous loop in a snapped or fastened position. Although I have shown a snap type fastener indicated systematically at 23 and 24, other means of fastening the extremities of the cover strip may be employed. This continuous loop will be worn

across the body of the person, such as indicated in 40, in FIGURE 3 and when so worn would have the reflective side or surface out so that in twilight and evening hours when the light strikes the same it will reflect the light to illuminate the surface of the same and give adequate warning of the presence of the wearer to approaching vehicles. It is particularly adapted for use with children or cyclists or with pedestrians walking along the edge of a road or cross the same.

FIGURE 2 shows another embodiment of my improved signal warning device which is generally similar in shape and construction to the continuous loop of FIGURE 1 with the reflective surface on one side thereof. In this embodiment, the opposite surface includes a luminescent material indicated at 45, which luminescent material be of a type currently identified as "blaze orange." This is a daylight fluorescent orange and is commercially available. The "blaze orange" or luminescent surface may be formed by a second strip of material of the same width as the strip forming the reflective surface 12 and suitably secured thereto by sewing, gluing or other means, not shown. As an alternative construction, the luminescent material may be included as a narrower strip positioned over the reflective surface and suitably secured thereto, as shown in FIGURE 7.

In this embodiment, the cover strip, indicated at 50, is of a larger width but will have basically the same length dimension relative to the width of the material forming the continuous loop. Suitable backing material 52, such as cardboard, is included in the connection between the cover strip and the continuous loop which is attached substantially normal to the extent of the continuous loop. The cover strip may be secured to the continuous loop with the backing material through suitable means such as riveting, sewing, or by positioning the fastening part 23 therethrough. The cooperating fastener part 24 at the opposite extremity of the same, cooperates with the fastener part 23 to secure the cover strip in a folded relationship around the strip of material forming the continuous loop in a completely or partially folded condition. The cover strip 50 may be made of the luminescent fabric material 45 or the reflective fabric material 12, as desired.

In usage, the continuous loop will be worn across the shoulders or body trunk of the cyclist or child, pedestrian or user, to provide a reflective surface or a luminescent surface depending upon which side is turned out to be exposed for viewing. Preferably the "blaze orange" or luminescent side would be worn out during the daylight hours for ready visibility. Such a loop of luminescent material is particularly applicable for children playing in and around streets. The luminescent surface would also be applicable during the twilight hours, while the reflective surface would be desirable during the hours of darkness where a light source falling on the same will illuminate the strip to identify the wearer.

In both of the embodiments of FIGURE 1 and FIGURE 2, the strip of material forming the continuous loop may be effectively shortened by folding the same around the cover strip a given number of times to obtain a desired free loop length and closing the ends of the cover strip on one another and around the given number of turns or loops of the continuous strip to secure the same in the shortened relationship as indicated in FIGURE 5. The cover strip also provides a method for storing the continuous loop in a folded or assembled relationship such as is shown in FIGURE 4, wherein the strip is wound across the cover strip over the entire extent of the same and the cover strip extremities folded over to effectively secure the continuous loop is a folded relationship. This will facilitate storing or handling of the same and carrying of the same by the user when it is not in use. In the case of the children, the length of the strip or loop may be

shortened to a length to accommodate their smaller bodies, such that the strip may be placed over the shoulders and down one's side to about waist level for comfort and convenience so as not to provide an obstruction to movements of the child. For an adult, the strip would normally be worn in its full-extended position or shortened, depending upon the stature of the wearer.

If desired, an additional pocket or packet, as indicated at 60, in FIGURE 6, and open at one extremity 62, may be used for inserting the assembled or folded protective warning device for carrying purposes. However the cover strip itself may form a sufficient protective cover.

In addition to wearing of the strip by a person for reflection purposes, the shortened length of the loop with the cover strip in place over a loop or two of the same will provide a pocket therein and such strip may be hung on an object, such as an automobile antenna, for the purpose of reflecting light at night as an indicator. The "blaze orange" luminescent surface may similarly be exposed for identification of a vehicle to other vehicles. This would be partially applicable in areas where high snowbanks obscure visions of approaching vehicles at intersections.

My improved safety warning device provides a reflective and/or luminescent surface or strip which will be readily worn by children, pedestrians, and cyclists, or used as a warning device, as indicated above, in connection with vehicle identification. It incorporates a suitable cover strip which may be used for varying the length of the continuous loop so it may accommodate various physical statures of the wearer. The cover strip forms a suitable means for securing a loop in an assembled relationship such that it may be readily carried in one's pocket to be used only as the occasion or need for the same arises. It is simple in construction and will provide a safety device very much needed to prevent injury to pedestrians, such as children, or cyclists or persons walking along roadways during twilight and hours of darkness where normal clothing worn by such persons will not present a sufficient reflective surface to warn of the presence of the same to occupants or drivers of vehicles approaching such persons. This simplified warning device is readily carried, is not cumbersome to the wearer, and can be effectively used in the saving of lives and injury to persons.

In considering this invention, it should be remembered that the present disclosure is intended to be illustrative only and the scope of the invention should be determined by the appended claims.

What is claimed is:

1. A safety warning device adapted to be worn by a person to provide a strip over the person's clothing to give visual warning of the presence of the person, comprising a strip of flexible fabric material connected to provide a continuous loop, said strip of fabric material having a reflective surface bonded thereon over the extent of the same on at least one side thereof, a cover strip having a length dimension of at least three times the width dimension of the strip material forming a continuous loop, said cover strip being secured to the continuous loop at a point such that the length dimension of the cover strip is substantially normal to the extent of the continuous loop, and means on the extremities of the cover strip cooperating selectively to secure said extremities around the strip of material at the securing point.

2. The safety warning device of claim 1 in which the means at the extremities of the cover strip are snap fasteners.

3. The safety warning device of claim 1 in which the continuous loop is folded over the width of the cover member selectively a number of times and the extremities of the cover members are brought together and secured over the folded portion of the continuous loop to secure the same in a folded relationship for selectively shortening

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the effective length of the continuous loop of the safety warning device.

4. The safety warning device of claim 3 in which the cover strip has a width dimension greater than the width dimension of the strip of material forming the continuous loop.

5. The safety warning device of claim 4 including means securing the cover strip to the strip of flexible material forming the continuous loop at the predetermined point and at the edges thereof and including reinforcing means positioned between the continuous strip and the cover strip.

6. The safety warning device of claim 1 in which the strip of flexible fabric material with the reflective surface on one side thereof includes a luminescent surface on the opposite side thereof.

7. The safety warning device of claim 3 in which the cover strip forms a protective cover and holds the continuous loop in a folded relationship when the loop is completely folded over the width of the cover strip and the means securing the extremities of the cover strip are connected together.

8. The safety warning device of claim 7 and including means including the cover strip to provide a protective covering over the safety warning device.

9. The safety warning device of claim 8 in which the

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means including the cover strip is an envelope of fabric material into which the assembled continuous loop in a folded relationship is placed.

10. The safety warning device of claim 5 in which the cover strip is made of a material which is the same as one side surface of the strip of flexible fabric material forming the continuous loop.

11. The safety warning device of claim 1 in which the strip of fabric material having the reflective surface bonded thereon includes a luminescent surface of different width dimension than the reflective surface associated therewith such that both surfaces will be viewed from the side.

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