

[54] WIRE MARKER

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[58] Field of Search 116/1, 114 R; 40/302, 316, 13, 26, 2, 21; 256/4

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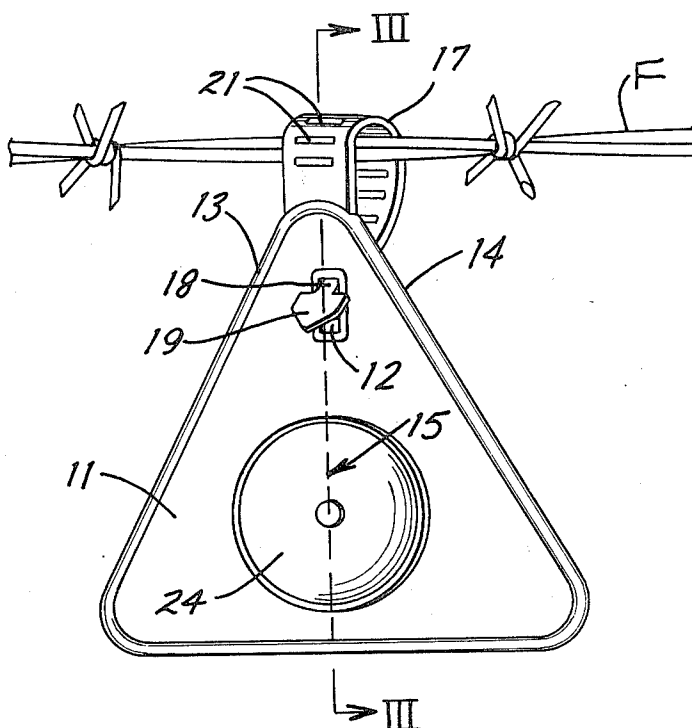
Primary Examiner—Louis J. Capozzi

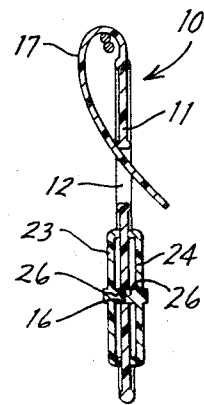
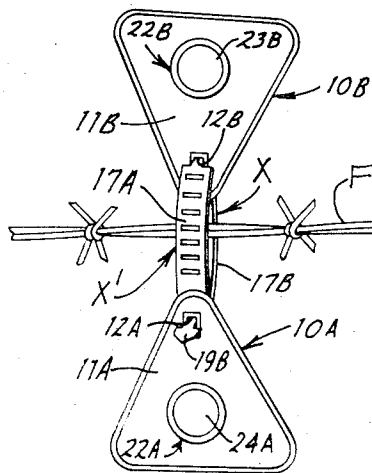
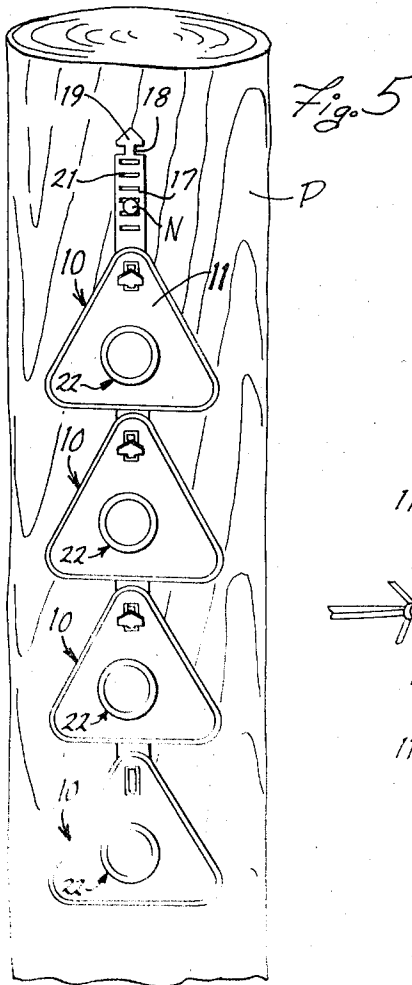
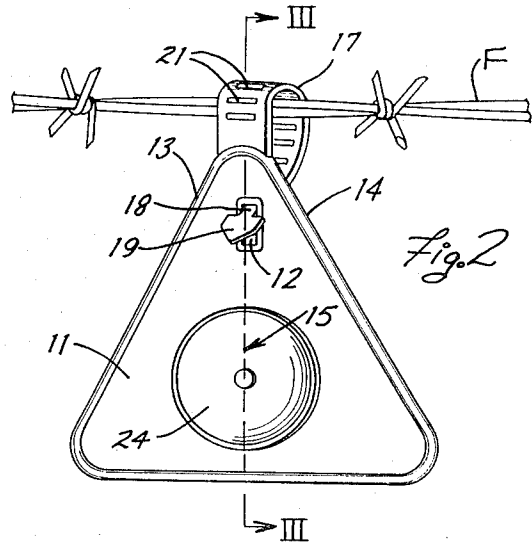
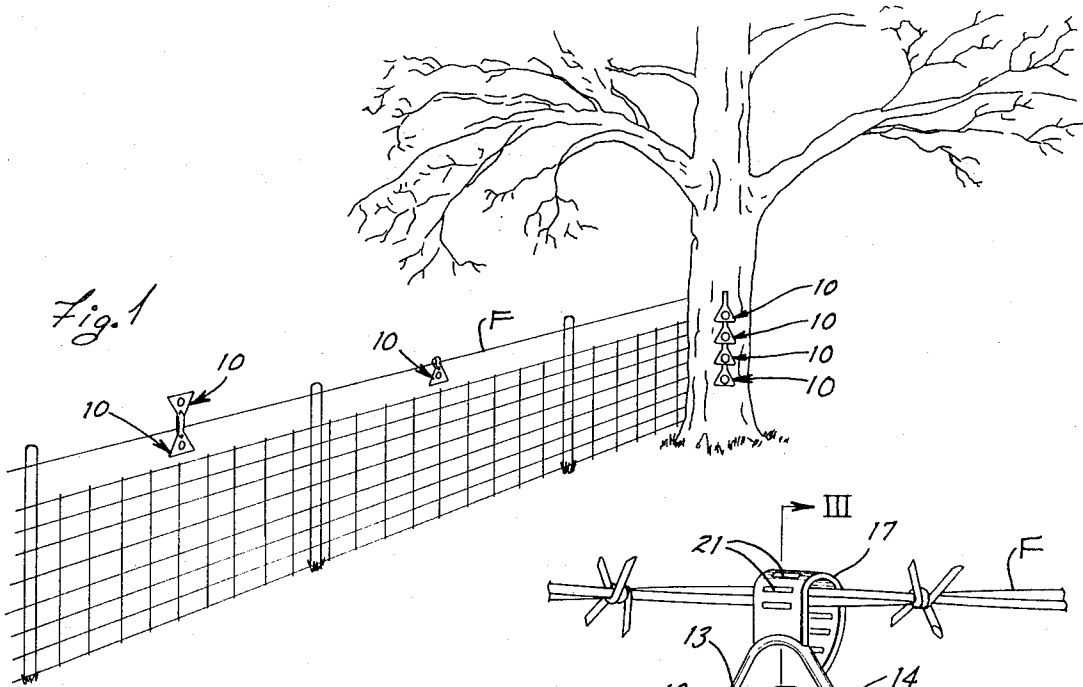
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[57] . ABSTRACT

A warning device for use on fence wire, trees, posts and the like. The device has a flat base and an integral strap extending from an edge thereof. The free end of the strap has fastening means on the end thereof adapted to be coupled with the base of the device or the base of an adjacent warning device. The strap can encircle a fence wire or it can be secured, as by nails, to trees and posts for marking trails, driveway entrances and the like. A light reflector is mounted on the base.

7 Claims, 5 Drawing Figures





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WIRE MARKER

FIELD OF THE INVENTION

This invention relates to a warning or visibility device and, more particularly, relates to a device which can be secured to fence wire, trees, posts and the like and which is an improvement over existing structures for the same purpose.

BACKGROUND OF THE INVENTION

Warning devices for securement to fence wire are known to exist, but such devices are generally complicated and relatively expensive to manufacture. As the use of terrain vehicles, such as snowmobiles, trail bikes and motorcycles, has increased in popularity, there has been an ever-increasing need for warning or marking devices which are inexpensive to manufacture and are weather-resistant. These devices must not only have the capability of warning the operator of a terrain vehicle of the existence of fences, trees and the like, but must also be adapted to guide the operator of the terrain vehicle along a specified route. As far as I am aware, a structure which is capable of use both for marking various obstacles, such as trees, posts and fences and for indicating a trail is not known in the prior art.

I have developed a warning device which is simply constructed, inexpensively constructed, durable and weather-resistant. This device is also capable of use both as a marker for obstacles as well as a trail marker.

Accordingly, the objects of this invention are to provide a warning device which is simple to manufacture, inexpensive to manufacture and is made of weather-resistant material to increase the durability thereof and thereby the length of use.

It is a further object of this invention to provide a warning device which may be used either by itself or in multiples to mark obstacles and/or be mounted for guiding operators of ground vehicles, as along trails or into driveways.

Other objects and purposes of this invention will be apparent to persons acquainted with warning devices of this general type upon reading the following specification and inspecting the accompanying drawings, in which:

FIG. 1 is an illustration of the several ways in which my warning device may be utilized;

FIG. 2 is an enlarged perspective view of said warning device mounted on a fence wire;

FIG. 3 is a sectional view taken along the line III—III of FIG. 2;

FIG. 4 is an enlarged perspective view of the two warning devices mounted together on a fence wire;

FIG. 5 is an enlarged showing of several warning devices mounted on a tree trunk.

Certain terminology will be used in the following description for convenience in reference, only. For example, the words "up" and "down" will designate directions in the drawings to which reference is made. The words "in" and "out" will refer to directions toward and away from, respectively, the geometric center of the device and designated parts thereof. Such terminology will include derivatives and words of similar import.

SUMMARY OF THE INVENTION

A warning device having a flat base has a strap ex-

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tending away from an edge thereof and normally lying in the same plane as the base. The free end of the strap has fastening means thereon adapted to be coupled with the base of the device. The strap is capable of encircling a fence wire, for example, when the fastener on the strap is secured to the base. Alternatively, the strap on one warning device may be secured to the base of another adjacent warning device to form a chain of two or more such devices. A light reflector is mounted on the base.

DETAILED DESCRIPTION

FIG. 1 illustrates several uses for my warning device 10, some of which uses will be discussed separately below.

FIG. 2 illustrates a warning device 10 having a flat polygonal base 11 made of a modable plastic material, such as a low density polyethylene. The base 11 is preferably flat, relatively rigid and may be of any geometric configuration. However, in a preferred embodiment, the base is triangular. An opening 12 is provided in the base 11 adjacent one of the angles of the polygon, here the angle formed by the side edges 13 and 14 of the polygon. The opening 12 is preferably divided by the bisector 15 of the angle formed by the edges 13 and 14. The opening 12 is elongated lengthwise of said bisector 15.

A second opening 16 (FIG. 3) is provided in the base 11 along the bisector 15 of the angle formed by the side edges 13 and 14.

A strap 17 is integrally molded with the base 11 and preferably extends from one of the angles of the base, such as the angle formed by the side edges 13 and 14. The strap 17 (FIG. 5) is aligned with the bisector 15 (FIG. 2) and has a narrow neck portion 18 producing a head portion 19 on the free end of the strap 17. The width of the neck 18 is preferably slightly less than the width of the elongated slot 12 in the base 11. The width of the head portion 19 is greater than the width of the elongated slot 12 but less than the elongated length thereof. The strap 17 also has a plurality of reinforcing ribs 21 which extend laterally thereof.

A light reflector 22 comprising a pair of identical halves 23 and 24 (FIG. 3) is mounted on the base 11. Each half 23 and 24 of the light reflector has a centrally located pin 26 extending outwardly therefrom and has a size which is slightly less than the diameter of the opening 16 in the base 11. The length of the pin 26 is limited so that when the reflector halves 23 and 24 are placed into engagement with the oppositely facing surfaces of the base 11, the ends of the pins 26 on the two halves 23 and 24 will just touch or be slightly spaced at the center of the opening 16. An appropriate adhesive is used to secure the adjacent ends of the two pins 26 together and thereby hold the reflector halves 23 and 24 firmly against the base 11.

OPERATION

Although the operation and use of the warning device 10 will be apparent to skilled persons after reading the foregoing description, a summary thereof will be given for convenience.

When it is desired to secure the warning device 10 to a fence wire F, the strap is placed around the fence wire F as illustrated in FIG. 2 in encircling relationship. The outer end of the strap 17 is then twisted so that the head 19 is in a plane aligned with the lengthwise extent

of the slot 12 and approximately perpendicular to the base 11. The head is inserted into the slot until the neck portion 18 is within the slot 12. Thereafter, the strap 17 and the enlarged head 19 are permitted to return to their regular positions, wherein the head 19 cannot slide back through the slot 12, as illustrated in FIG. 2.

Thus, when snow is of an appreciable depth, the warning device will clearly indicate to the operator of a terrain vehicle, such as a snowmobile, the presence of a fence wire which may be positioned relatively close to the surface of the snow.

Alternatively, the warning device 10 A (FIG. 4) may be combined with another like device 10B. Since the two devices 10A and 10B are identical with the device 10, the various parts thereof will be identified by the same reference numerals as were used to describe the device 10 but with the suffixes "A" and "B" being added thereto to distinguish the two devices.

In this arrangement, the strap 17A on the warning device 10A is inserted into the opening 12B in the warning device 10B. The strap 17A is positioned adjacent to and transversely of the fence wire F, and the strap 17B of the device 10B is positioned on the opposite side of the fence wire F from the strap 17A. The strap 17B is twisted so that the head 19B is received through the slot 12A in the base 11A of the device 10A. Thus, when the head 19B returns to the normal position, as illustrated in FIG. 4, it is locked to the base 11A.

Referring to the embodiment of FIG. 4, staples may be used at the locations marked X and X', on opposite sides of the fence wire F, to secure the straps 17A and 17B together. Thereafter, the wind will cause the two warning devices 10A and 10B to rotate in a windmill fashion about the axis defined by the fence wire F. The movement of the two devices will serve to draw the attention of a terrain vehicle operator to the fence wire.

Alternatively, and referring to FIG. 5, a plurality of warning devices 10 may be secured together in a chain-like manner. In this particular embodiment, the head 19 on the end of a strap 17 of one device 10 is received through the elongated slot 12 in the next adjacent device 10. The bases 11 are, in this embodiment, positioned so that the strap 17 of one warning device 10 is behind and substantially coextensive with the base of the warning device to which it is attached. The chain may be of any desired length.

In this particular embodiment, I have chosen the base to be of a triangular shape and, due to the fact that the strap 17 extends laterally outwardly from the base 11 at the corner formed by the adjacent edges 13 and 14, the chain form takes on the shape of an arrowlike appearance. Thus, the chain of warning devices can be utilized as a trail marker for operators of ground vehicles. Similarly, the chain of devices 10 can be securely fastened to a post or a tree by means such as nails N which penetrate the strap 17 on each device 10.

Preferably, the lowermost device 10 is the first device in the chain to be nailed in place. Then the next device is attached to the first after which its strap is nailed in place, and so on.

Although particular preferred embodiments of the invention have been disclosed in detail for illustrative purposes, it will be recognized that variations or modifications of the disclosed apparatus, including the rearrangement of parts, lie within the scope of the present invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A warning device for use on a fence wire, tree or post, comprising:

flat base means and substantially coplanar strap means extending away from an edge of said base means and having an end thereof fixed to said base means, the free end of said strap means having first fastening means thereon, said first fastening means comprising a neck portion and an enlarged head portion secured to said neck portion adjacent the free end of said strap means;

second fastening means on said base means adapted to be coupled with said first fastening means, whereby one warning device can be mounted on a fence wire or coupled with a second warning device;

said second fastening means comprising an elongated opening in said base means near the fixed end of said strap means, the width of said opening being at least equal to the width of said neck on said strap means and the length of said opening being at least equal to the width of said enlarged head on the free end of said strap means, whereby said enlarged head can be inserted into said opening and then turned to a locked position relative to the base means; and

light reflector means mounted on said base means.

2. A warning device according to claim 1, wherein said strap means extends away from said base means in a direction which is substantially aligned with the lengthwise direction of said opening.

3. A warning device according to claim 2, wherein the fixed end of said strap means is integrally connected to the edge of said base means.

4. A warning device according to claim 3, wherein said base means is triangular and said strap means thereon extends away from a corner of said base means aligned with the bisector of the angle formed by the two edges of the base defining said corner.

5. A warning device according to claim 1, wherein said strap means comprises an elongated and substantially flat strap constructed of a flexible material, said strap having the fixed end thereof integrally connected to the edge of said base means, said base means and said strap being integrally molded as one piece.

6. A warning device according to claim 5, wherein said strap and said base means are constructed of a plastic material, and wherein said reflector means includes a pair of reflector members mounted on opposite sides of said base means.

7. A warning device for use on a fence wire, tree or post, comprising:

flat base means having integral and substantially coplanar strap means extending away from an edge thereof, the free end of said strap means having first fastening means thereon;

said base means being triangular and said strap means extending away from a corner of said base means aligned with the bisector of the angle formed by the two edges of the base means defining said corner;

second fastening means on said base means adapted to be coupled with said first fastening means, whereby one warning device can be mounted on a

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fence wire or coupled with a second warning device; and
light reflector means mounted on said base means,
said light reflector means including a pair of circular reflectors located on opposite sides of said base means;
each reflector having a central pin extending therefrom, the combined extensions of said pins from

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said reflectors being about equal to the thickness of said base means, said base means having an opening along said bisector into which said pins are receivable; and
adhesive means for securing said pins together when said reflectors are against said base means.

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