

Aug. 21, 1962

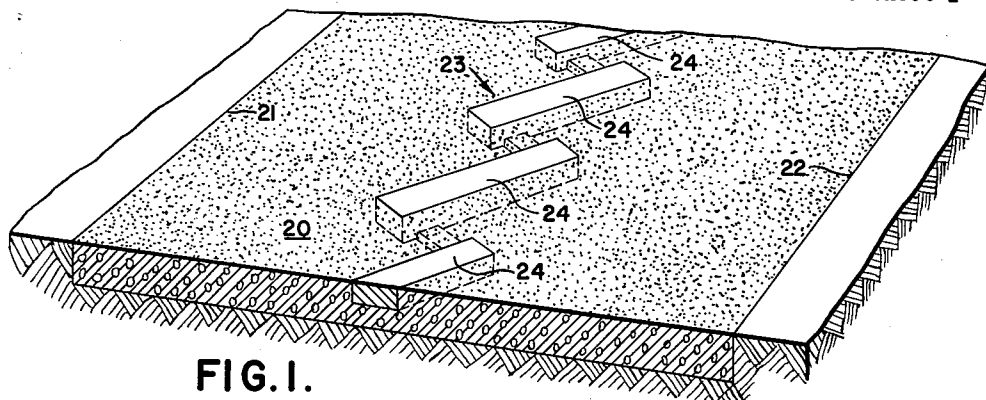
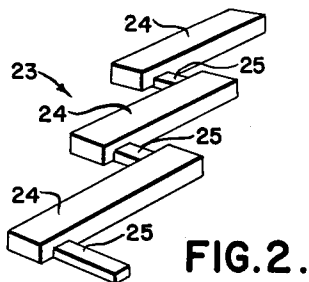
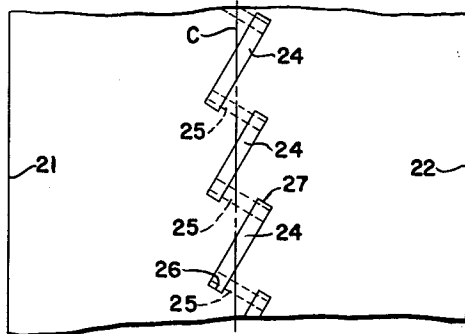
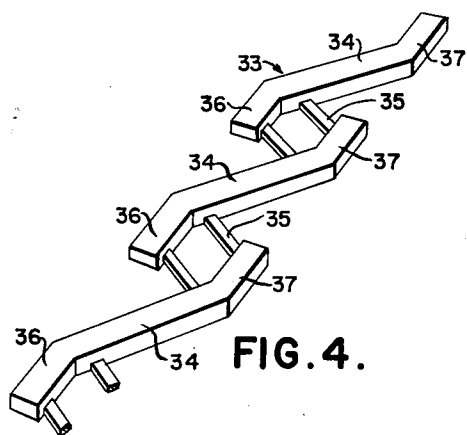
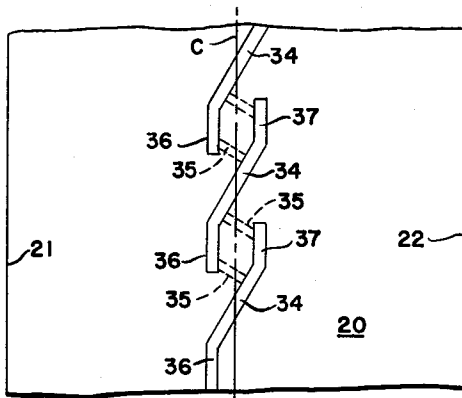
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HIGHWAYS

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2 Sheets-Sheet 1



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2 Sheets-Sheet 2

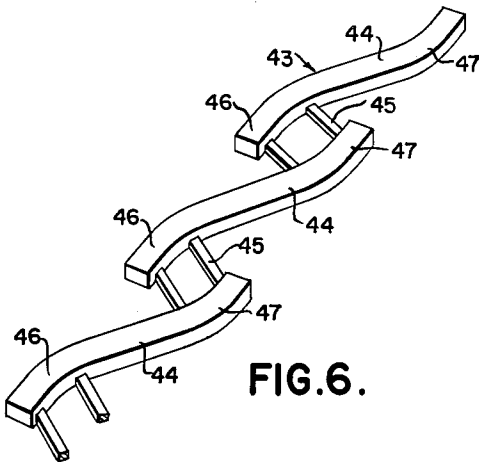


FIG. 6.

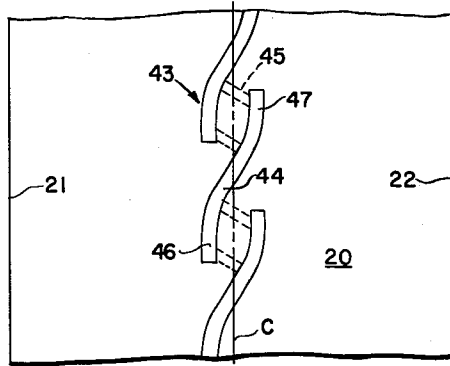


FIG. 7.

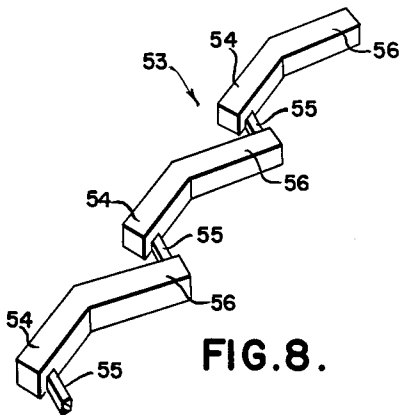


FIG. 8.

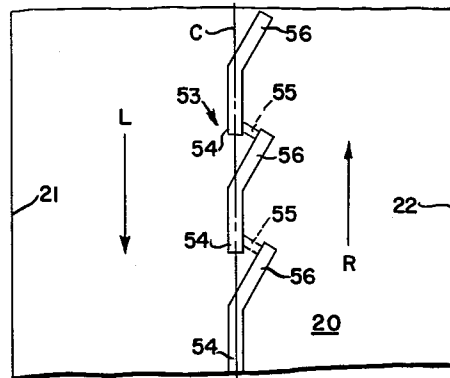


FIG. 9.

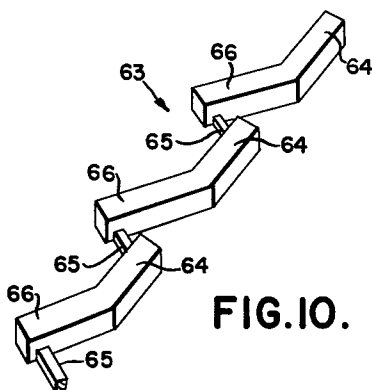


FIG. 10.

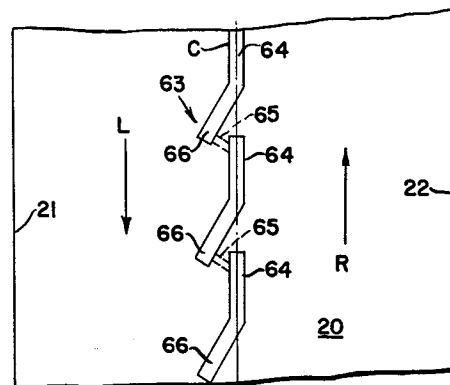


FIG. 11.

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3 Claims. (Cl. 94-1.5)

The present invention relates to highways, and more particularly to improvements in light reflectors that are used in the middle of such highways.

This application is a continuation-in-part of copending application Serial No. 673,705 filed July 23, 1957, now abandoned.

At the present time there are various light-reflecting devices or means that are used in conjunction with highways in order to serve as traffic guides for the traffic that moves over the highways. Such reflecting devices have taken various forms, and have generally been made of metallic members that are attached to or embedded in the highway, or have been made of concrete members which are made integral with or are made separately and are attached to the highway. In addition, there may be mentioned the provision of lines painted on the highway to serve as a traffic guide.

The prior art light-reflecting devices that have been used on highways have been characterized by one or more of several deficiencies. Thus, they have often been expensive to fabricate and install and, in addition, have provided a generally monotonous view for the drivers of vehicles traveling over the road. This monotony of view has been found to cause fatigue and strain to the vehicle drivers, thus resulting in an inadvertent lowering of the level of concentration of the driver and his inattention to the steering of his vehicle. In consequence of the lost concentration and inattention, there have been tragic accidents on the highway.

An object of the present invention is to provide a light reflector for use on a highway that will avoid fatigue-encouraging monotony.

Another object of the present invention is to provide a light reflector for a highway that will continuously warn the driver of the manner in which he should steer his vehicle.

A still further object of the present invention is to provide light reflectors which will avoid monotony and provide a continuous warning, which light reflectors are easily applied to the highway and may be readily understood by the vehicle driver.

Other objects and the nature and advantages of the instant invention will be apparent from the following description taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a perspective view of a highway, partially in section, having a light reflector in accordance with the present invention therewith.

FIG. 2 is a perspective view, with parts broken away, of the light reflector shown in FIG. 1.

FIG. 3 is a plan view of the highway of FIG. 1.

FIG. 4 is a perspective view of another light reflector in accordance with the present invention.

FIG. 5 is a corresponding plan view of a highway provided with the light reflector of FIG. 4.

FIGS. 6, 8 and 10 are perspective views of other light reflectors in accordance with the present invention, while

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FIGS. 7, 9 and 11 are plan views of highways embodying the light reflectors of FIGS. 6, 8 and 10, respectively.

Referring now to the drawings, wherein like reference characters are used to designate like or corresponding parts throughout the several views, there may be seen in FIG. 1 a highway generally designated 20. Highway 20 is made of concrete or other suitable material and has the usual left edge 21 and right edge 22. Highway 20 is supported by the ground although it will be understood that the highway may also be supported by suitable bridge-like structures where necessary. Partially embedded in highway 20 is a light reflector 23 which comprises a plurality of generally elongate elements 24.

As may be seen from FIG. 2, the several elements 24 may take the form of boards or the like, and are connected together by connecting members 25. Suitable means are provided for joining the elements 24 and connecting members 25, such as jointing of the members, bolts, adhesive, etc.

In FIG. 3 there is shown a section of the light reflector 23, and it will be seen to be partially embedded into the highway 20 and to lie on either side of the center line C of the highway which is, of course, midway between the left edge 21 and right edge 22 thereof. Each of the elements 24 has an end 26 thereof between the center C of the highway and the edge 21, and has the other end 27 thereof between the center C and the edge 22. It will thus be seen that each of the elements 24 crosses the center C of the highway and is inclined from left to right as viewed by a driver proceeding along the highway in the right-hand lane. The connecting members 25 are not visible, having been embedded into the highway and serving as anchors for the elements 24.

It will be understood that the light-reflecting elements or means 24 are provided with or formed of a suitable coating or other reflecting means where the element 24 is itself not of such a nature as to reflect light of a different characteristic from the light reflected by the surface of the highway 20.

As a consequence of the light-reflecting characteristics of the element 24, or of the coating or the embedding therein of light-reflecting substances, and as a consequence of the arrangement thereof, as hereinabove stated, drivers proceeding along the right-hand lane of the highway 20 will have presented to them a view of a diagonal and interrupted marking or guide, which marking or guide will tend to subconsciously urge the driver to the right and which will be less monotonous than heretofore used guides or markers.

The light reflector 23 is used in conjunction with a highway where the drivers on either side of the road are permitted to pass.

In FIG. 4 there is shown a light reflector 33 comprising a series of first generally elongate elements 34. These elements are inclined from lower left to upper right, as viewed in FIG. 4, and each element 34 has second and third elements 36 and 37 at the ends thereof. The second and third elements 36 and 37 are preferably integral with the first element 34. Suitable connecting members 35 are used to joint together the several units making up the light reflector 33, each unit being comprised of a first element 34, a second element 36 and a third element 37.

When the reflector 33 is placed on a highway, as shown in FIG. 5, the first elements 34 of the several units will

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cross the center line C in the same fashion as the elements 24 of the reflector 23. In addition, the second elements 36 and the third elements 37 extend parallel to the highway center line C. The several connecting members 35 will be embedded in the highway 20 and will, therefore, not be visible to the motorist. The view afforded the motorist by the highway construction shown in FIG. 5 is similar to a double solid line, and also diagonal lines which subconsciously urge the driver to the right. The light reflector 33 would be used on any part of the highway 20 in which no passing is permitted by vehicles going in either direction.

In FIG. 6 there is shown a view of a light reflector 43 that is generally similar to the light reflector 33, light reflector 43 differing from light reflector 33 in that the first elements 44 thereof have a gentle S curvature, the second elements 46 and the third elements 47 being tangent to and continuing the curvature of the first element 44. The connecting members 45 are provided to join several individual units, made up of elements 44, 46 and 47, in series into the light reflector 43.

The appearance of the light reflector 43, in a plan view, is shown in FIG. 7, wherein the several units made up of the elements 44, 46 and 47 may be seen, the connecting members 45 being embedded. The appearance to the driver of light reflector 43, and the use thereof, is substantially the same as that of light reflector 33.

In FIG. 8 there is shown a light reflector 53 comprising several serially connected units. Each unit comprises a first element 54, which is of generally elongate shape, and a second generally elongate element 56 which extends from an end of the first element 54 diagonally from left to right. The second element 56 makes an obtuse angle with the first element 54 and the several units are connected together by connecting members 55.

The light reflector 53 may be placed on a highway 20, as shown in FIG. 9, with the first elements 54 extending substantially coextensively with the center line C of the highway 20. The elements 56 extend diagonally from left to right from the remote end of the element 54, as viewed by an observer in the right-hand lane R of highway 20.

A motorist in the right-hand lane R will receive the impression of a series of diagonal and interrupted lines, given by the elements 56, and thus will be informed that he can pass on that stretch of the highway. The motorist in the left-hand lane L will be guided by the first elements 54 which will present a substantially uninterrupted straight line due to the proximity of the several elements 54, and thus will be informed that he is not to pass on that section of the highway.

The light reflector 63, shown in FIG. 10, is similar to the light reflector 53 but is used where the right-hand lane is not to pass and the left-hand lane may pass. Thus the reflector 63 is made up of the several units, each comprising a first element 64 and a second element 66 that extends diagonally from an end thereof and makes an obtuse angle therewith. As viewed by an observer in the right-hand lane, the second element 66 extends from the closer end of each of the first elements 64.

The appearance of element 63, when embedded in highway 20, is shown in FIG. 11. The first elements 64 are, as in the case of element 53, placed substantially coextensively with the center line C of the highway 20, with the second elements 66 extending towards or into the left-hand lane L. The connecting members 65 are embedded and will not be visible. From the right-hand lane R, the first elements 64 will present a substantially unbroken line, and from the left-hand lane L a driver will view the series of diagonally spaced second elements 66, and will be given the impression of being guided to the right and at the same time permitted to pass.

There have been provided a series of light-reflecting elements which may be readily and economically installed in a highway to guide the drivers of vehicles proceeding

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therealong. Because of the configurations of the several light-reflecting elements, the monotony and fatigue usually experienced by drivers will be greatly diminished and thus there will be decreased that portion of the accident rate which is attributable to these factors.

It will be understood that the various light reflectors set forth in the drawings and specification are illustrative only, the invention being defined in the appended claims.

I claim:

1. In combination with a highway, a series of highway lane delineator light-reflecting marker elements, the upper surface of each of said marker elements being spaced from the upper surface of adjacent elements, each of said elements being generally elongated and having one end thereof lying in an area between the longitudinal division of two adjacent highway lanes and the outer margin of one of said lanes, the general longitudinal axis of each of said elements crossing the center of said longitudinal division and being inclined from the left foreground to the right background as viewed by the driver over said one lane on said highway with attention being paid to the light-reflecting elements to the left, said spaced elongated light-reflecting elements each being located so that the general longitudinal axis of each element makes generally a minor acute angle with said longitudinal division, the area of the highway between the adjacent spaced ends of adjacent elements being relatively light absorbing in character whereby the combined highway and light-reflecting elements serve to alert the observer to keep to the right of the light-reflecting elements as well as to delineate the lanes of the highway, each of said elements having a light-reflecting tail portion in the foreground spaced from the central longitudinal axis of said two highway lanes and generally parallel thereto.

2. In combination with a highway, a series of highway lane delineator light-reflecting marker elements, the upper surface of each of said marker elements being spaced from the upper surface of adjacent elements, each of said elements being generally elongated and having one end thereof lying in an area between the longitudinal division of two adjacent highway lanes and the outer margin of one of said lanes, the general longitudinal axis of each of said elements crossing the center of said longitudinal division and being inclined from the left foreground to the right background as viewed by the driver over said one lane on said highway with attention being paid to the light-reflecting elements to the left, said spaced elongated light-reflecting elements each being located so that the general longitudinal axis of each element makes generally a minor acute angle with said longitudinal division, the area of the highway between the adjacent spaced ends of adjacent elements being relatively light absorbing in character whereby the combined highway and light-reflecting elements serve to alert the observer to keep to the right of the light-reflecting elements as well as to delineate the lanes of the highway, each of said elements having a light-reflecting head portion in the background spaced from the central longitudinal axis of said two highway lanes and generally parallel thereto.

3. In combination with a highway, a series of highway lane delineator light-reflecting marker elements, the upper surface of each of said marker elements being spaced from the upper surface of adjacent elements, each of said elements being generally elongated and having one end thereof lying in an area between the longitudinal division of two adjacent highway lanes and the outer margin of one of said lanes, the general longitudinal axis of each of said elements crossing the center of said longitudinal division and being inclined from the left foreground to the right background as viewed by the driver over said one lane on said highway with attention being paid to the light-reflecting elements to the left, said spaced elongated light-reflecting elements each being located so that the general longitudinal axis of each element makes generally a minor acute angle with said longitudinal division, the area of the highway between the adjacent spaced ends of adjacent ele-

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ments being relatively light absorbing in character whereby the combined highway and light-reflecting elements serve to alert the observer to keep to the right of the light-reflecting elements as well as to delineate the lanes of the highway, each of said elements having a light-reflecting tail portion in the foreground and a light-reflecting head portion in the background, said light-reflecting tail portion and said light-reflecting head portion each being spaced from the central longitudinal axis of said two highway lanes and generally parallel thereto.

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