March 14, 1933. E. T. D. MYERS, JR 1,900,945

ROAD MARKER

Filed March 2, 1931 2 Sheets-Sheet 1

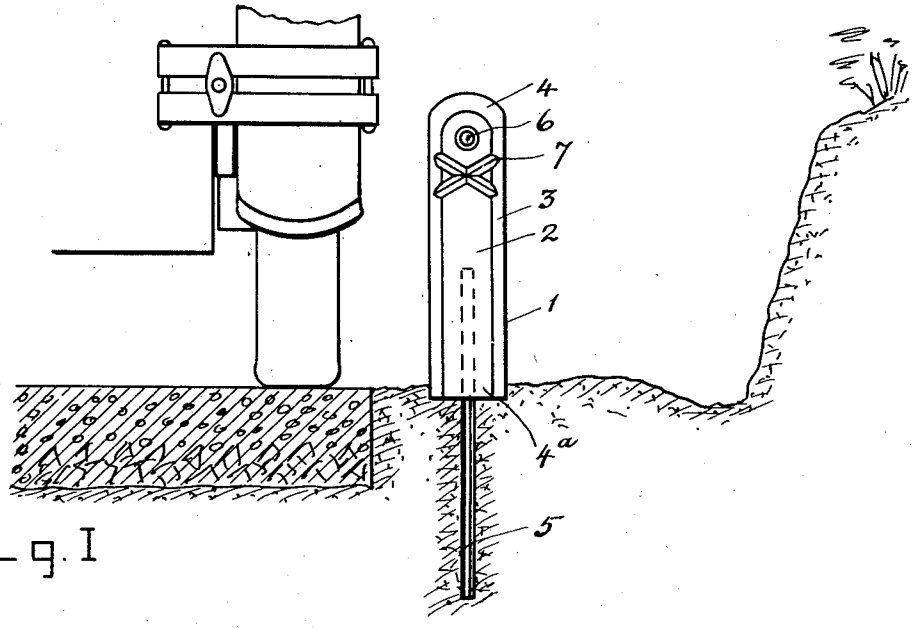


Fig. I

Fig. II

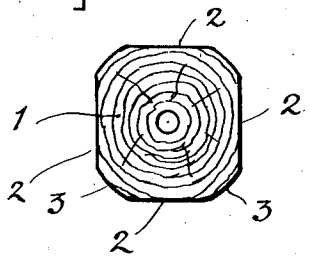


Fig. III

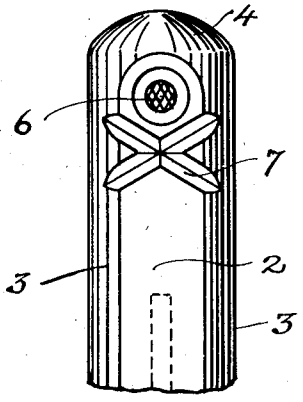
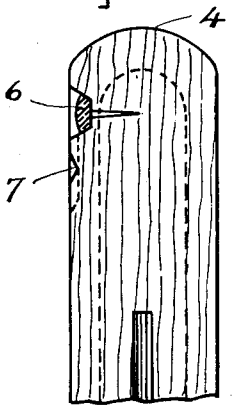


Fig. IV



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ROAD MARKER

Filed March 2, 1931 2 Sheets-Sheet 2

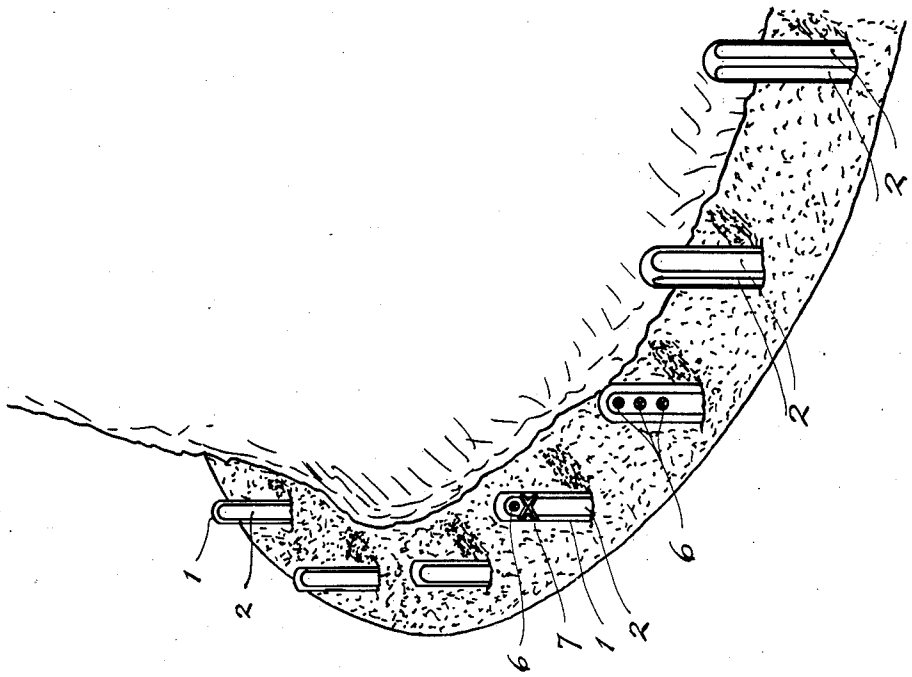
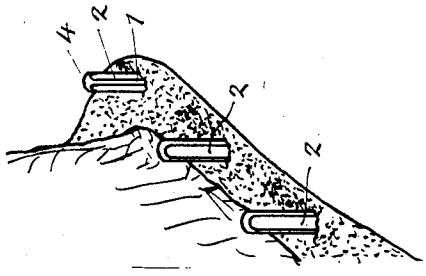


Fig. V



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UNITED STATES PATENT OFFICE

EDMUND T. D. MYERS, JR., OF RICHMOND, VIRGINIA

ROAD MARKER

Application filed March 2, 1931. Serial No. 519,519.

My invention relates to road markers, and particularly to that type of marker which is used for defining the shoulder of the road which borders upon the paved surface, or for indicating and warning against the closeness of a ditch or other depression or obstacle.

Many highways are paved with concrete or other hard surfaced materials; and this pavement is bordered by what are known as shoulders. These shoulders frequently consist of the original material of which the road was made. Sometimes they are lightly surfaced with crushed stone; with the intention of removing the slippery surface, and of affording some traction to rolling wheels. In other cases they are sown with grass; and often the original grass border is left between the pavement and the limit of the road, which may be a ditch. At night, and particularly when one is approached by other cars, it is extremely difficult, if not impossible, to see the shoulder or the ditch, when the shoulder is not distinguished from the paved road surface in some manner. If the pavement has been in service for any length of time the line of demarcation between it and a grass shoulder, or any shoulder except a white one, cannot be seen. State highway departments are trying various means of distinguishing between the pavement and the shoulder, even to painting a broad white line at the edge of the pavement. But, as all drivers know, it is not easy to see a white line on the off-side of the car when another car, with lamps lit, is approaching, for the reason that it is not sufficiently conspicuous, nor does it reflect the beams from the lamps of either car to the driver of the other car. It is believed by the majority of drivers that the best protection at the side of the road is one taking the form of a fence, and painted white. Such fences are used at the edges of bridges and of steep declivities; and are very substantially built, so that they may deflect a car should it strike them. They are expensive to build and to maintain. When struck by a heavy car, boards are split, and posts and other materials are damaged; and on the other hand, the car striking them is frequently wrecked.

The great number of accidents on the highways due solely to the driver running the off-wheels of his car on to the shoulder, make it necessary to provide a simple road marker or definer, which may be so cheaply constructed, and so easily handled, that it may be used at many points along the highway to warn against danger, to outline curves, to indicate hidden cross roads, and for many other safety purposes.

The object of my invention is to provide such a marker, which may be easily manufactured from cheap materials, which shall be substantial, which may be struck and overturned without permanent damage to it, which may be returned to its original condition easily and at low cost, and which may be placed in its desired position on the road by any employee of the highway department, county, or other authority, without any difficulty.

Further objects of my invention are to provide a marker which may be removed in case it is desired to pass a snowplow or a scraper over the spot it occupies, and which may be replaced without trouble after the road operation has been completed, or which may be easily replaced if moved or thrown down by accident, or by a mischievous person, and which shall at the same time offer considerable resistance to displacement by children, straying animals, heavy rains, and other destructive agencies; to provide a marker which may be manufactured in quantities at such a low figure as to be an important economic feature in the marking of the edge of a highway, and so that the total cost of placing and maintaining per mile shall be small compared with the protection to life and limb afforded, and with the saving of the cost of maintenance on the shoulder surfaces; to provide a marker which shall be visible by day, and by night with or without the aid of artificial light, and which may be used as a sign to indicate an approach to a cross road or other danger spot.

Referring to the drawings which accompany and form a part of this specification:

Figure I is an elevation of my road mark-

er, shown erected on the shoulder at the road side.

Figure II is a cross section of the marker.

Figures III and IV show the head of the marker, with reflecting media.

Figure V shows a part of a highway with my markers in place.

Referring to Figure I: The body 1 of the marker, standing 18 inches above the ground more or less, and from four to six inches wide, is shaped so as to provide one or more flat surfaces 2. The corners 3 and the top 4 of the marker are rounded off to eliminate sharp edges and corners, so that in case the marker is struck by a passing vehicle the marker and the vehicle may sustain the least possible damage. For a distance of eight inches more or less I insert into the foot 4 of my marker a metal rod 5, projecting a sufficient distance below the marker body 1 to form a substantial support to the said body. The diameter of this rod 5 I prefer to be about five eighths of an inch, because that is a standard size, is produced in large quantities, has sufficient stiffness and strength for my purpose, and is large enough to have a good grip in the ground.

In the face of the marker I set one or more faceted discs or buttons of glass or reflecting medium, preferably sinking the button below the surface of the post to protect it from any chance blow. On certain posts I cut or gain grooves for the purpose of reflecting light rays in such a manner as to attract attention. To indicate approach to a danger point I use two crossed grooves; and to indicate a particularly dangerous point these grooves may be combined with the faceted reflector. The reflector and grooves are shown in Figures III and IV. The surface of the post may also be used for carrying road directions, conspicuously painted thereon, or applied in sheet metal characters, or in light reflecting media. My road marker may also be used with plane surfaces, and without the addition of grooves or buttons or other reflectors.

The body of my marker is painted white, or with a metallic paint such as aluminum, or with a luminous paint which at night emits light absorbed during the day; the object being to make it as visible as possible and to enable it to reflect the rays from the driver's lamps.

In Figure V I have shown my markers used to outline a curve, and at the same time to indicate the approach to a cross-road. In a similar manner my marker may be used to define the edge of a straight road. Where the shoulders are soft the marker is preferably placed on such a line that the projecting bumper or the wheel will strike it before the wheel has left the pavement; but where the shoulder is of grass or is surfaced with stone, gravel, or other hard material, the markers are then set back from the pavement, and only come in line with the car wheel should the latter swerve too near the danger line.

When a marker is struck by a car a sound will be emitted, and the driver will feel the slight vibration. In this way he will be instantly given an audible warning, even through he may be watching an approaching car, and not just then have the line of markers in his field of view; and he will subconsciously but instantly take precautionary measures, such as applying the brakes, slowing down. If when struck by a car, the marker is thrown back or down, the iron rod 5 will be more or less bent. It is readily straightened again cold, by a few blows from a light hammer. It is better that the rod be so stiff as to require a fair blow to bend it, as it is then less liable to displacement or bending by chance contact with the bodies of animals, or by hurricane.

When about to set out markers along a road, the roadhand takes with him a pilot rod, which is a pointed rod of steel, somewhat less in diameter than the rod 5. With this pilot rod he drives a hole in the ground to a sufficient depth, withdraws it, and then inserts and drives home the rod 5 of the marker. The tight hold that the rod 5 will thus have in the ground will given a substantial support to the marker. Should the marker be accidently displaced, or removed to allow for the removal of snow or for working the surface, it is easily replaced by the same method, the roadhand merely re-opening the hole in the ground with his pilot bar, or making a new one. In setting the marker the roadhand is careful to drive the marker down so that the base of the body portion shall be slightly below the surface of the road; or he will pack some of the surface material up around the base of the body; the object being to give the impression of a wooden post set in a regular post hole; a post of this class, and so imbedded in the ground, being less tempting to mischievous persons than a post obviously set upon a light iron rod.

I have shown the body of my marker as made of wood, in which case it is preferably of gum, cedar, cypress, or other wood not liable to splinter. But the body of my marker may also be made of any suitable material, such as sheet metal, or metal plate; in which case the reflecting grooves or sign matter are painted, stamped, or cast on it.

It will be found that one or the other body material will be the more desirable in certain localities.

I have described my marker as being adapted for setting up in the soft shoulders of roads. It is also peculiarly useful in those cases where it is necessary to set up a marker or sign on a rock surface, or even on solid rock; for it is only necessary to drill in the

rock a hole sufficiently large and deep as to receive the stem of the marker.

I claim:

A road marker consisting of a short post-like body having a light reflecting surface, mounted on a ductile stem which is completely hidden in the ground, and which has sufficient stiffness to hold the marker up under ordinary conditions, but which will allow the marker to be struck down without damage to the marker or to the striking agent.

In testimony whereof I have affixed my signature.

EDMUND T. D. MYERS, JR.