Feb. 11, 1930. J. W. LEE 1,746,312

MARKER

Filed March 6, 1928

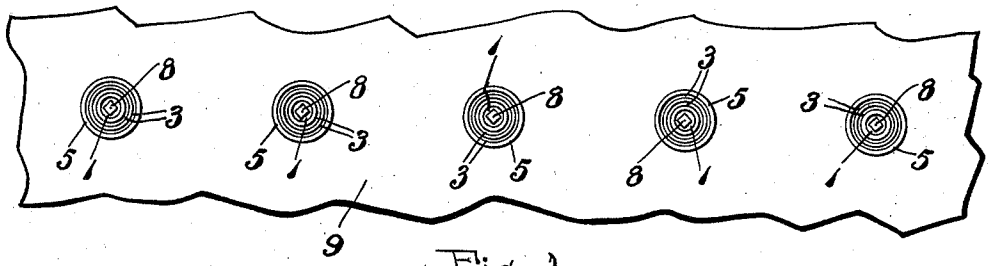


Fig. 1.

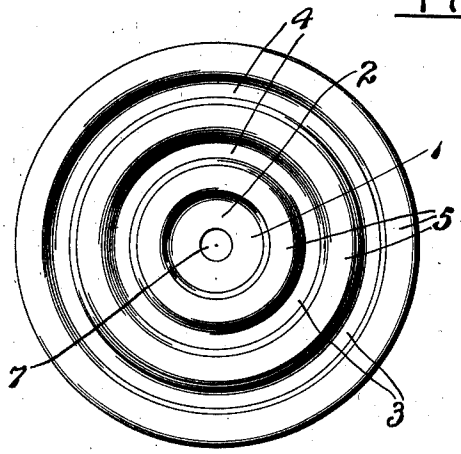


Fig. 2.

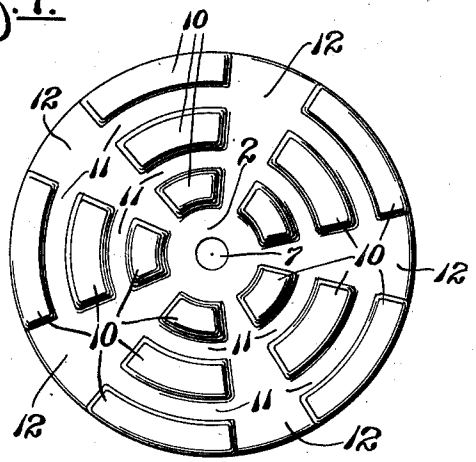


Fig. 5.

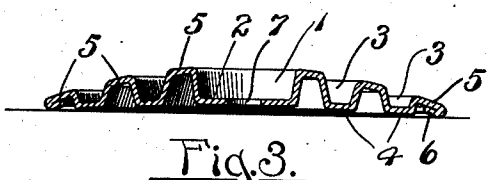


Fig. 3.

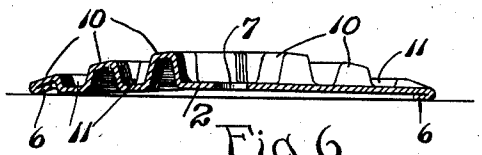


Fig. 6.

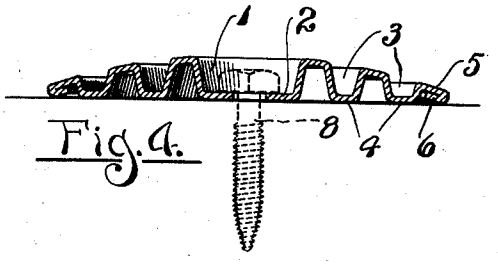


Fig. 4.

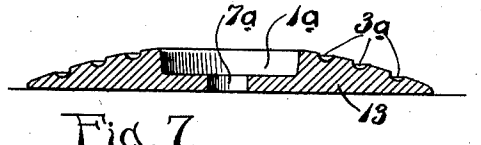


Fig. 7.

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UNITED STATES PATENT OFFICE

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MARKER

Application filed March 6, 1928. Serial No. 259,404.

This invention relates to a marker particularly useful in conjunction with line marking. In factories, many times, runways are used on one side of which trucks carrying material going through the factory are moved in one direction, while at the opposite side thereof the trucks are moved in the opposite direction. It is desirable that the trucks moving in any one direction stay at one side of the runway and frequently a marking line is used lying longitudinally and at the center of the runway to mark the lanes of travel.

The same construction holds good with respect to highways, particularly concrete highways. And very frequently at the center and lengthwise of the road, marking lines are painted for the guidance of vehicles moving in opposite directions on opposite sides of the road.

Lines made by painting the same are temporary at best. The paint soon wears off and in a comparatively short time the lines are either very faint or wholly obliterated necessitating repainting.

With my invention it is designed, that a permanent marker may be used and a large number of them placed in alignment at properly spaced intervals and in this way eliminate the necessity of frequent renewal of marking lines as now used in factories, on highways and other places. The invention which I have devised, while simple, is one of great utility in defining and marking a division line for traffic whereby all vehicles moving in one direction will stay at one side of the line and those travelling in the opposite direction will stay at the opposite side thereof.

An understanding of the invention and the construction of the same will be apparent from the following description taken in connection with the accompanying drawing, in which,

Fig. 1 is a fragmentary plan view illustrating a plurality of the markers located in alinement and spaced from each other.

Fig. 2 is an enlarged plan view of one form of marker.

Fig. 3 is a central vertical section therethrough.

Fig. 4 is a similar section showing a preferred form of securing means therefor in dotted lines.

Fig. 5 is a plan view similar to Fig. 2 of a different form of marker.

Fig. 6 is a central vertical section therethrough, and

Fig. 7 is a central vertical section through a still further form of marker.

Like reference characters refer to like parts in the different figures of the drawing.

As shown in Figs. 1 to 4 inclusive, the marker is made of sheet metal stamped into suitable form including a central recess 1, the bottom 2 of which lies in a horizontal plane. The metal is pressed and formed to provide a plurality of concentric grooves 3 having parts 4 in the substantially same horizontal plane with the bottom 2 of the central recess. The connecting portions 5 between said central recess 1 and groove 3 and outwardly beyond the outermost groove are shaped so that the outer surfaces lie substantially in the curve of a segment of a sphere. In order to strengthen and reinforce the outer edges of the marker the edges of the metal are bent back underneath making a continuous annular lip 6.

A plurality of these markers may be used to mark a line on any surface such as a factory floor, the center of a road or the like. A hole 7 is made through the bottom 2 of the central recess through which a securing bolt or screw 8 may be passed which threads into the floor or road 9, making a secure and firm connection. The parts 2 and 4 of the central recess 1 and concentric grooves 3 are drawn flat against the surface of the floor or road and when the markers are attached are in horizontal plane. Before attachment the lowermost points of the return lips 6, however, are slightly lower than the under side 2 and 4 of the marker, so that when the securing bolt 8 is attached and drawn down tightly, the marker is sprung downwardly at its middle point, as shown in Fig. 4, and at its edges bears very firmly and snugly against the surface over which it is pressed.

In Figs. 5 and 6 a different form of the marker is shown wherein a plurality of con-

centric projections 10 spaced by concentric grooves 11 are made around the central recess and radial grooves 12 separate the ends of the projections 10. In effect it is the same as though radial grooves were made in the marker shown in Figs. 2, 3 and 4. The attachment to the floor or road is the same as in the one first described. This construction is a slight improvement over that shown in Figs. 2, 3 and 4 in some respects, namely; in that the radial grooves 12 effect complete drainage and water will not collect and be held as in the recess 1 and grooves 3 as in the marker first described. In Fig. 7 instead of making the marker of sheet metal it is cast as a solid member with a central recess or depression 1^a, an opening 7^a at the bottom thereof, and with concentric grooves 3^a made in the upper surface of the marker around the central recess.

The upper surface of the markers of the character described are covered with a non-corrosive plating making a hard bright surface. Accordingly, it is not necessary to paint and repaint markers of the type described. The grooved outer surface is not nearly as liable to cause accidents as smooth outer surfaces should a workman in a factory step thereon. This device though of very simple character has proved very practical in service. When it is made of sheet metal, the grooved form greatly strengthens and reinforces the metal from which it is made. It is cheaply produced and when installed is permanent and does not have to be replaced with the great frequency required with painted line markers on a road surface or factory floor. The invention is defined in the appended claims and is to be considered comprehensive of all forms of structure coming within their scope.

I claim:

1. A marker formed from a single piece of sheet metal with a raised upper surface having a centrally disposed recess therein and a plurality of spaced apart grooves around said recess, the bottoms of said grooves, the bottom of said recess and the edges of the marker lying in substantially the same horizontal plane when installed to form a substantially flat under surface.

2. A marker formed from a single piece of sheet metal with a raised upper surface having a centrally disposed recess therein and a plurality of spaced apart grooves around said recess, said marker at its edges being turned back to provide an annular under lip, the bottoms of said grooves, and said central recess and the lowermost points of said under lip lying in substantially the same horizontal plane but with the bottom of said grooves and recess slightly elevated so that when attached to a surface, the central part of the marker is drawn downward and the edge portion of the marker brought snugly against the surface over which it is placed.

3. A marker comprising, a body having a substantially flat under side and a raised upper side with a central recess therein, said raised upper side of the marker around said recess having a plurality of grooves therein, said marker at its edges being turned back to provide an annular under lip.

4. A marker comprising, a body circular in outline having a substantially flat under side and a rounded upper side with a centrally disposed recess at the upper side, a plurality of spaced apart concentric grooves made around said recess in the upper rounded surface of said body and said marker at its edges being turned back to provide an annular under lip.

5. A marker formed from a single piece of sheet metal with a raised upper surface having a centrally disposed recess therein and a plurality of spaced apart grooves around said recess, said marker at its edges being turned back to provide a rounding non-cutting edge and an annular lip the bottoms of said grooves and said central recess and the lowermost points of said lip lying in substantially the same horizontal plane but with the bottom of said grooves and recess slightly elevated so that when attached to a surface the central part of the marker is drawn downward and the edge portion of the marker brought snugly against the surface over which it is placed.

6. A marker formed from a single piece of sheet metal with a raised upper surface having a centrally disposed recess therein and a plurality of spaced apart grooves around said recess, and a radial groove extending from said central recess to the periphery, the bottoms of said grooves, the bottom of said recess and the edges of the marker lying in substantially the same horizontal plane when installed to form a substantially flat under surface.

In testimony whereof I affix my signature.

JAMES WESLEY LEE.