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 RAILWAY SAFETY APPLIANCE.
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1,096,766.

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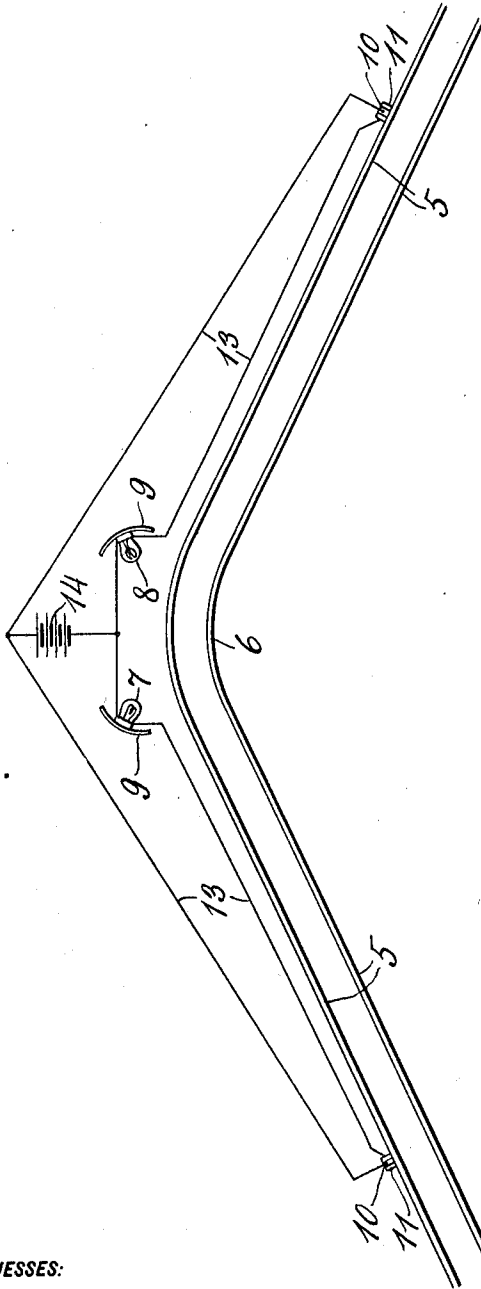


Fig. 1.

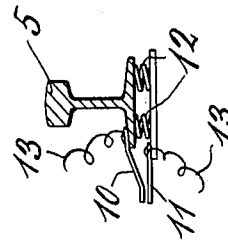


Fig. 2.

WITNESSES:

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RAILWAY SAFETY APPLIANCE.

1,096,766.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARK M. THOMAS, a citizen of the United States, residing at Rifle, in the county of Garfield and State of Colorado, have invented certain new and useful Improvements in Railway Safety Appliances, of which the following is a specification.

This invention has for its object to provide an illuminating device for railway roadbeds on curves, so that the engineer of a train approaching the curve after dark may observe the condition of the roadbed ahead.

When a locomotive is passing around a curve, the headlight does not follow the track but the rays of light are thrown to one side, with the result that the track ahead is left in darkness and the engineer is unable to observe the condition thereof. Thus, if there is an obstruction on the track, a wreck, often entailing great loss of life and property, is liable to occur. The present invention is designed to overcome this difficulty, novel means being provided whereby the curve is automatically illuminated as a train approaches the same.

In order that the invention may be better understood, reference is had to the accompanying drawing, in which—

Figure 1 is a diagrammatic view illustrating the application of the invention. Fig. 2 is a cross section showing the track instrument employed in connection with the apparatus.

In the drawing 5 denotes the rails of a railway track having a curve 6. At the curve, on the outside thereof, are located two lamps, the same being indicated at 7 and 8, respectively. The lamps may be ordinary electric lamps provided with a suitable reflector 9. As clearly shown in Fig. 1, the lamps are located on opposite sides of the curve, and they are so positioned that the light from one lamp is thrown across the curve and along the middle of the track leading to the curve on one side thereof, the light from the other lamp being thrown across the curve and along the track which leads to the curve from the opposite side thereof. In other words, the beams of light extend tangentially to the curve.

The circuits of the lamps are controlled by track instruments which may be constructed as follows: At a suitable distance from the curve, one of the rails 5 is mounted so that it is depressed when a train passes over the same. This rail carries a contact 10, and beneath the latter is a contact 11. The rail is held elevated by springs 12 so that the contacts are normally separated. When a train is passing over the rail, the latter is depressed, whereby the contact 10 is brought into engagement with the contact 11 to close the lamp circuit, the wires 13 thereof being suitably connected to the contacts. When the train passes off the rail, the springs 12 elevate the rail to its normal position and separate the contacts to break the lamp circuit. A track instrument as herein described is located on each side of the curve, so that a train approaching from either direction will light up the curve. The electric current source 14 may be a storage battery or a series of ordinary dry cells.

The safety appliance herein described is very simple in construction, it can be maintained at very little expense and it affords complete protection to trains at curves by lighting up the track to give the engineer a clear view thereof, and thus enables him to observe its condition.

I claim:

1. An illuminating appliance for railway tracks at curves, comprising an electric lamp placed behind the curve and positioned to cast a beam of light along and parallel to that portion of the track which leads to the curve, and a track instrument controlling the lamp circuit.

2. An illuminating appliance for railway tracks at curves, comprising an electric lamp placed behind the curve on the outside thereof and positioned to cast a beam of light across the curve along and parallel to that portion of the track which leads to the curve, and a track instrument controlling the lamp circuit.

In testimony whereof I affix my signature in presence of two witnesses.

MARK M. THOMAS.

Witnesses:

MARK S. THOMAS,
FRANK M. GILLUM.