Mar. 27, 1923. 1,449,518

J. A. LAWSON

ROAD GUARD

Filed Feb. 9, 1922

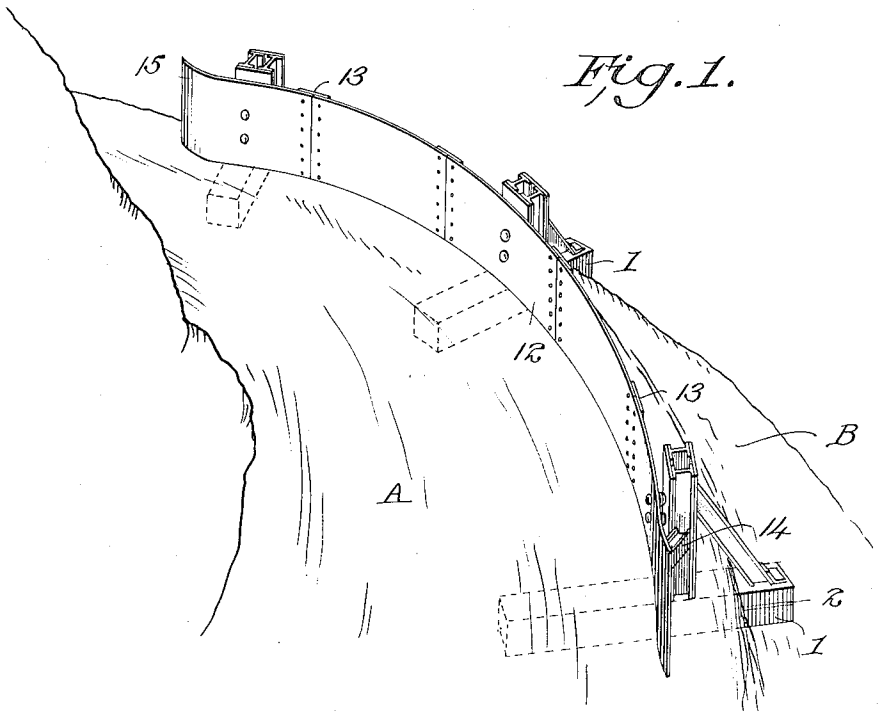


Fig. 1.

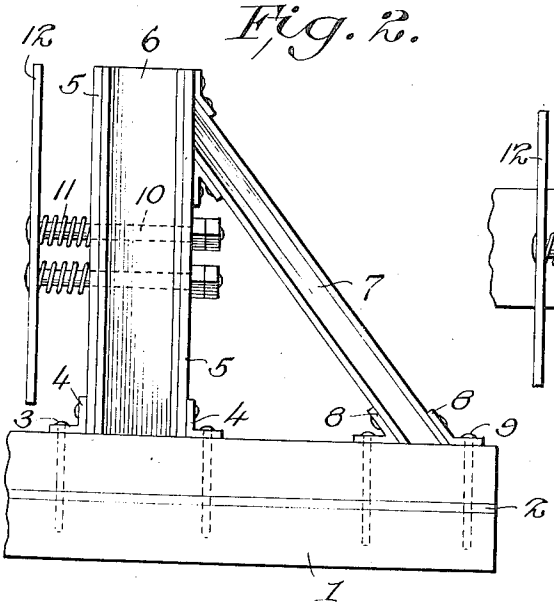


Fig. 2.

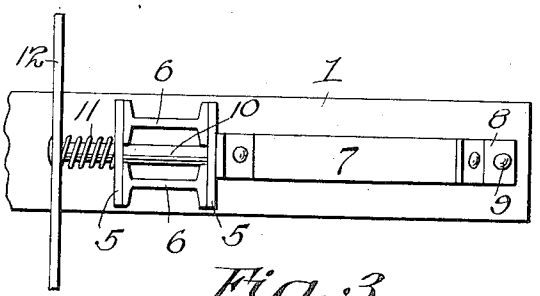


Fig. 3.

Inventor
John A. Lawson,
Cubberley & Kessenich.
Attorney

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UNITED STATES PATENT OFFICE.

JOHN A. LAWSON, OF WEST HAVEN, CONNECTICUT.

ROAD GUARD.

Application filed February 9, 1922. Serial No. 535,323.

To all whom it may concern:

Be it known that I, JOHN A. LAWSON, a citizen of the United States, residing at West Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Road Guards, of which the following is a specification.

My invention relates broadly to improvements in guard or safety devices for roads, bridgeheads, and the like, whereby to prevent vehicles from leaving a defined path of travel. More specifically my invention contemplates the provision of a cushioned guard member formed with a plurality of plates arranged to present a continuous surface, and retained in position by improved supports particularly adapted for positioning the guard along the exposed edge of a road bordering an abrupt declivity, such as is presented by the face of a cliff or the side of a mountain.

Safety devices heretofore known and used, such as fences and guard rails, have proved ineffectual on account of inapt construction or inherent fragility, and cement or stone walls are usually too expensive for general purposes. My invention, as distinguished from these, affords a positive, cushioned guard which is readily adaptable to the particular curvature of the road or the approach to bridgeheads, and which presents a continuous wall like surface through which no vehicle could pass. Furthermore, the supports and the guard per se are formed of parts which are simple, few in number, and which may be replaced with facility when they become worn or broken.

To the foregoing advantages and functions may be added: first, the particular adaptability of my guard surface for the reception of advertising matter and road signs; second, the arrangement of the guard with respect to a road bed which primarily eliminates the use of a gutter and dome crown; third, the interpolation of spring elements between the guard plates and supports which prevents excessive shock both to a vehicle and to the guard; and, fourth, the arrangement and construction of the parts comprising the supports which facilitates setting up the guard and renewing those parts which might become broken or worn.

The particular elements of my guard device employed to accomplish the above and other equally important objects will be hereinafter more fully described in detail and specifically pointed out in the claims appended hereunto and forming a part of this specification.

In the accompanying drawings wherein is illustrated the preferred embodiment of my invention:—

Figure 1, is a perspective view showing my guard applied to a road encircling a cliff,

Figure 2, is a side view of one guard element including a support, and

Figure 3, is a top plan view of an element including a portion of a guard plate and a support.

Like characters of reference refer to like or similar parts throughout the several views of the drawings, in which:—

(A) designates a road bed constructed preferably without crown or outside gutter and (B) the exposed edge of the road which in the present instance is shown to be the face of a cliff. Embedded a considerable distance beneath the surface of the road, and, in the present instance, extending outwardly from the face of the cliff (B) are a plurality of elongated cement blocks (1) each formed with a central plate iron reinforcing member (2). Attached to each of the blocks (1) by bolts (3) extending through the members (2), are a pair of brackets (4), to which are secured by rivets the ends of vertical plates (5). The plates (5) rise through the road bed and have arranged therebetween a pair of spaced I-beams (6). The plates (5) and the I-beams (6) form an upright standard which is supported by an inclined I-beam (7) the lower end of which is riveted to brackets (8), which in turn are bolted as at (9) to the block (1). The upper end of the beam (7) is riveted to one of the plates (5) as shown in Figure 3. The plates (5) may be either welded to the beams (6) as shown or riveted or bolted thereto. In the present instance the inclined supporting beams (7) rise to the standards from the exposed ends of the blocks (1) but if the road is one not encircling a cliff or other abrupt declivity, the beams (1) are embedded completely in the ground.

Extending through the plates (5) midway their ends, and between the I-beams (6) are a pair of large bolts (10) each carrying a coil spring (11). Between the coil springs (11) and the headed ends of the bolts (10)

are arranged plates (12) which form the guard per se. The plates (12) are positioned about six inches from the ground or surface of the road and extend upwardly flush with the tops of the standards. The dimensions of the plate may be of any size although preferably rectangular. Adjoining plates are riveted to a strip (13) so that in effect the plates form a continuous wall which may be shaped to conform to the curvature of the road. The end plates are braced in any suitable manner by the support (14).

In assembling the guard formed by the plates upon the standards, the bolts (10) are passed through the plates and the coil springs (11) disposed thereon, whereupon they are passed through the standards and the nuts applied. It will be seen that impact upon the guard will be compensated by the coil springs (11) thus materially lessening shocks both to a vehicle and to the guard and supports.

In the present embodiment the ends of the guard are bent back as at (15) to prevent accidental contact with an approaching vehicle, and the general curved conformation of the guard is simply shown by way of illustration, as it may well be straight or otherwise curved to conform to the particular nature of the road where used.

The surface of the guard may be utilized for advertising matter (not shown) or it may be painted a distinctive color, such as white, to acquaint an approaching vehicle at night with the proximity of a dangerous curve.

While in the foregoing there has been illustrated and described such combination and arrangement of elements as constitute the preferred embodiment of my invention, it is nevertheless desired to emphasize the fact that interpretation of the invention should only be conclusive when made in the light of the subjoined claims.

Having described my invention and its objects with such attention to detail as will thoroughly acquaint one skilled in the art with its construction and advantages, I claim:—

1. A device of the type described comprising longitudinal base members, vertical supporting members each engaging one of the base members, braces for retaining the supporting members upon the base members, a guard member, and means for resiliently connecting the guard member with the supporting members.

2. A device of the type described comprising longitudinal base members, a pair of vertical plates secured to the base members, beams arranged between the plates, a brace for the plates, bolts carried by the plates and extending between the beams, a guard member carried by the bolts, and coil springs interpolated between the guard member and the adjacent plates.

3. A device of the type described comprising a guard formed with curved end portions, supporting standards for the guard, means loosely engaging the guard and the standards for retaining the guard thereon, and resilient means arranged upon the aforementioned means and directly engaging the standards and guard for exerting sustained pressure upon the guard.

4. A device of the type described comprising a guard, supporting standards for the guard, a plurality of loosely mounted bolts carried by the standards, and the guard being loosely mounted on the bolts and limited in movement in one direction by the heads of the bolts, and resilient means directly engaging the standards and the guard for exerting sustained pressure upon the guard.

5. A device of the type described comprising a guard, a plurality of supporting standards for the guard, each formed with front and back plates, and spaced I-beams forming side plates, and a plurality of retaining members loosely carried by the aforementioned plates and arranged between the said I-beams for attaching the guard to the standards, said retaining members being arranged in pairs for the purpose defined.

6. A device of the type described comprising a guard formed with backwardly curved end portions, supporting standards for the guard, a plurality of bolts loosely carried by the standards, the guard being loosely mounted on the bolts and normally resting against the heads thereof, and a coil spring carried by each of the bolts and bearing directly against the standards and the guard for exerting a sustained pressure upon the guard.

In testimony whereof I affix my signature hereto.

JOHN A. LAWSON