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1,599,986

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VEHICLE SURFACE SIGNAL

Filed July 17, 1925

Fig. 1.

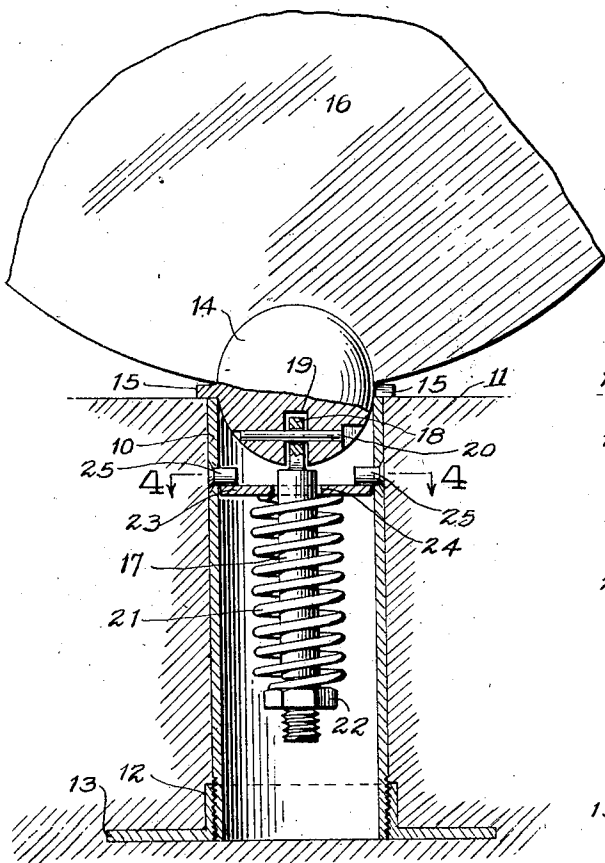


Fig. 2.

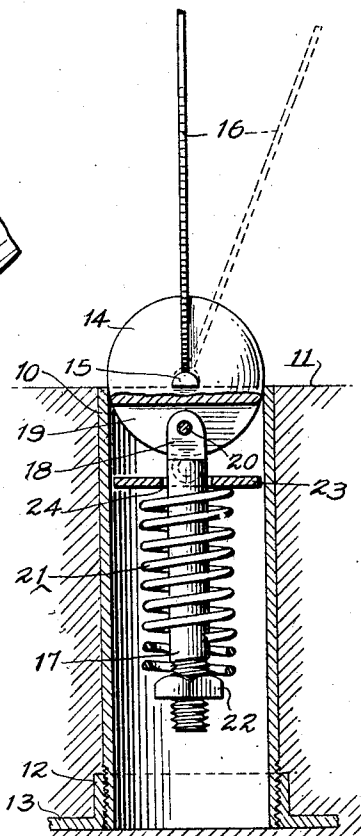


Fig. 3.

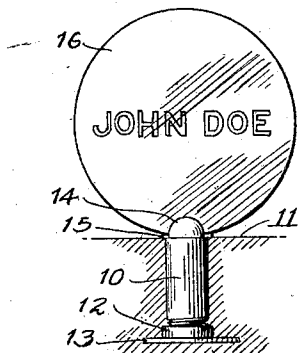
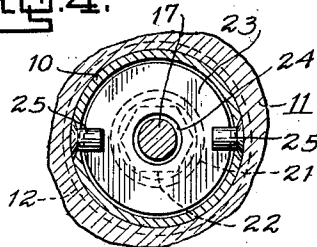


Fig. 4.



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VEHICLE SURFACE SIGNAL.

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The present invention relates to vehicle and like signals, and has for an object certain detail improvements in the structure of the device disclosed in my Patent Number 1,526,742, granted February 17, 1925.

More specifically, the object of the invention embraces a more solid support for the rocking or lowering member which insures the normal upright position of the sign; the novel mounting of the casing or body part in the roadway so that it may be removed from time to time to effect adjustment and repair of the parts of the signal, and a novel structure and arrangement of the tension means for direct action upon the rolling member to normally maintain it in correct position.

Another object of the invention is to provide a tiltable or rocking sign which may be mounted directly in the roadway and which is of novel and simple construction admitting of compactness and accessibility to the parts, and in providing a novel structure which may be easily and economically manufactured and assembled.

The above and various other objects and advantages of this invention will be more particularly brought out in the following detailed description thereof, and from the present illustrated embodiment of the invention as shown in the accompanying drawing, wherein:—

Fig. 1 is a fragmentary vertical section taken through a vehicle signal constructed according to the present invention.

Fig. 2 is a similar view taken axially at right angles to Fig. 1, the full lines showing the sign in normal upright position and the dotted lines showing the sign partially tilted.

Fig. 3 is a side elevation of the signal embedded in the roadway,

Fig. 4 is a fragmentary transverse section taken through the vehicle signal on the line 4—4 of Fig. 1.

Referring to the drawing 10 designates a casing or body part adapted to be sunk in the roadway 11 and which is screw threaded at its lower end into the upstanding flange 12 of an anchoring plate 13. In mounting the signal in the roadway the base plate 13 and the casing 10 may first be assembled and embedded in the roadway so that base plate 13 serves as an anchor to firmly hold the casing 10 from being lifted

out of the ground by vibration and pressure on the upper end of the signal.

Seated in the upper end of the casing 10 is a rocking member 14 which may be in the form of a ball adapted to close the top of the casing and project part way into and part way above the mouth of the casing. This rocking member is supported upon a pair of trunnions 15 which project diametrically from the opposite sides of the rocking member 14 and engage upon the upper edge of the casing 10. The lower faces of the trunnions 15 are flattened so as to lie against the upper edge of the casing and determine an upright position for the rocking member 14. These flat faces of the trunnions 15 also serve to yieldingly maintain the rocking member in an upright position. A sign or signal arm 16 preferably comprising a flat board or disk of suitable material is seated in a transverse slot formed in the upper portion of the rocking member and preferably in the plane of the trunnions 15 so that when the rocking member 14 is turned upon the trunnions 15, the sign or arm 16 is tilted either forwardly or backwardly.

Novel means is provided for yieldingly drawing the rocking member 14 into the upper end of the casing 10, and for thus yieldingly holding the flat faces of the trunnions against the upper edge of the casing. This means comprises a bolt 17 which is provided on its upper end with a flat tongue 18 fitting into a slot 19 formed cross wise in the lower part of the rocking member 14. The slot 19 extends entirely through the lower part of the rocking member and lies in a plane at right angles to that of the trunnions 15 and sign 16. The tongue 18 is apertured in its upper end and a cross pin 20 is fitted through the lower portion of the rocking member 14 and through the tongue to pivotally connect the same in the slot of the rocking member. The pin 20 lies in the plane of the sign 16 and the trunnions 15. The bolt 17 carries a helical spring 21 which is seated at its lower end against a nut 22 adjustably threaded upon the lower end of the bolt 17 to urge the spring upwardly against a washer 23 which surrounds the bolt 17 and has a relatively large opening 24 therethrough to permit the bolt a free play incident to the movements of the rocking member 14.

In order to exert a counter or downward pressure on the spring 21, the casing 10 is provided with a pair of stop pins 25 which project inwardly from the wall of the casing 10 above the washer 23 to hold the same from moving upwardly. The nut 22 therefore tensions the spring 21 and transmits the pressure of the spring to the bolt 17 to urge the same downwardly at all times.

In operation, the signal is normally in the position shown in Figs. 2 and 3, and when struck by a vehicle is tilted in the direction shown by the dotted lines in Fig. 2 so as to turn the rocking member 14 on its trunnions 15, raising the trunnions on edge and contracting the spring 21. As soon as the tilting pressure is released from the sign 16, the spring 21 draws the trunnions downwardly into normal position and exerts a pressure to hold the flat faces of the trunnions flat against the top edge of the casing 10. The rocking member and the sign are thus quickly brought into a position of rest and are effectively held in upright position. As the washer 23 has a relatively large opening 24 the upper end of the bolt 17 may freely move on its pivot 20 as the rocking member is turned, and the washer 23 and spring 21 are free to turn in the casing below the stop pins 25 so that should the sign 16 be struck at one edge the same together with the rocking member are free to turn upon and within the upper end of the casing 10.

It will be noted that the tension means is entirely mounted upon and suspended by the rocking member 14 so that the latter may turn and assume different positions axially of the casing 10. The stop pins 25 merely bear against the upper side of the disk 23 and are unattached with respect to the same.

When it is desired to adjust the tension of the spring 21, it is only necessary to unscrew the casing 10 from the anchoring flange 12 and withdraw the casing. Access may then be had to the nut 22 through the lower open end of the casing. The casing may then be easily replaced by screwing it back into the anchoring flange.

It is of course understood that various changes and modifications in the details of design and construction may be made in the above specifically described embodiment of this invention, without departing from the spirit of the invention, and restricted only by the scope of the following claims.

What is claimed is:—

1. A vehicle signal for roadways comprising a casing adapted to be sunk in the

ground, a rocking member mounted to rock and turn upon the upper end of the casing, a sign projecting upwardly from the rocking member, a bolt pivotally connected to the lower part of the rocking member, a spring on the bolt, an adjusting nut on the bolt engaging the lower end of the spring, a washer loosely surrounding the upper part of the bolt and seated upon the upper end of the spring, and stops independent of the washer projecting inwardly from the casing to engage the washer and hold the same from pulling upwardly through the casing.

2. A vehicle signal for roadways comprising a casing, a rocking member mounted to rock in the upper end of the casing, trunnions at opposite sides of the rocking member, said trunnions having flat faces to seat on the upper edge of the casing, a signal projecting upwardly from said rocking member, and tension means pivotally connected to the lower end of the rocking member to turn therewith, and to yieldingly hold the trunnion against the upper edge of the casing.

3. A vehicle signal for roadways comprising a casing, a ball seated in the upper end of the casing and provided at opposite sides with trunnions having flat faces to seat against the upper edge of the casing, a bolt pivotally connected to the lower part of the ball, a spring surrounding the bolt, a disk loosely surrounding the bolt and bearing against the upper end of the spring, stops projecting inwardly from the casing to engage the upper surface of the disk, an adjustable nut on the lower end of the bolt bearing against the spring to draw the bolt downwardly through the disk, and a sign extending upwardly from the ball.

4. A vehicle signal comprising a casing adapted to be sunk in a roadway, an anchoring plate threaded upon the lower end of the casing to permit removal of the casing without removing the anchoring plate, a ball fitting in the top of the casing and having trunnions at opposite sides adapted to rock on and slide about the upper edge of the casing, a bolt pivotally connected to the lower part of the ball, a spring on the bolt, an adjusting nut on the bolt engaging the lower end of the spring, a washer loosely surrounding the upper part of the bolt and seated upon the upper end of the spring, and stops independent of the washer projecting inwardly from the casing to engage the washer and hold the same from pulling upwardly through the casing.

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