

Dec. 23, 1930.

H. D. GRIGGS ET AL

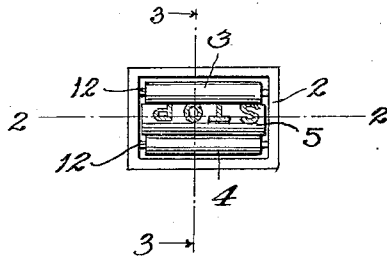
1,785,952

SAFETY STOP SIGN

Filed Oct. 19, 1929

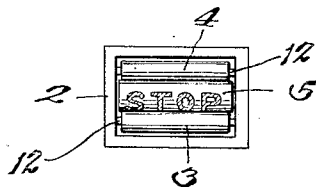
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Fig. 1.



ARTERIAL

HIGHWAY



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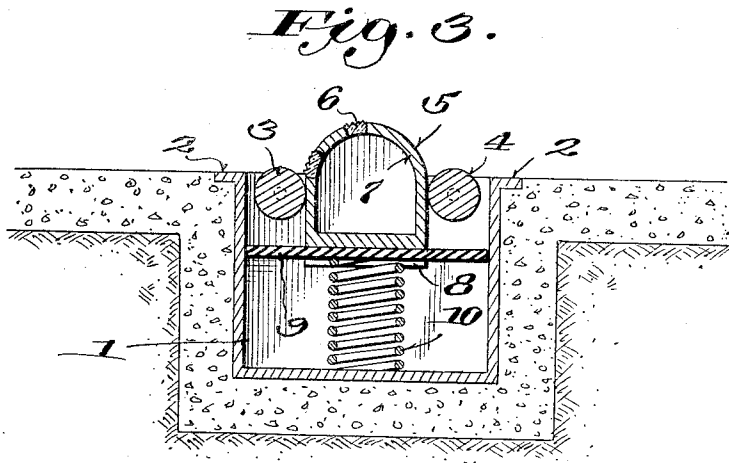
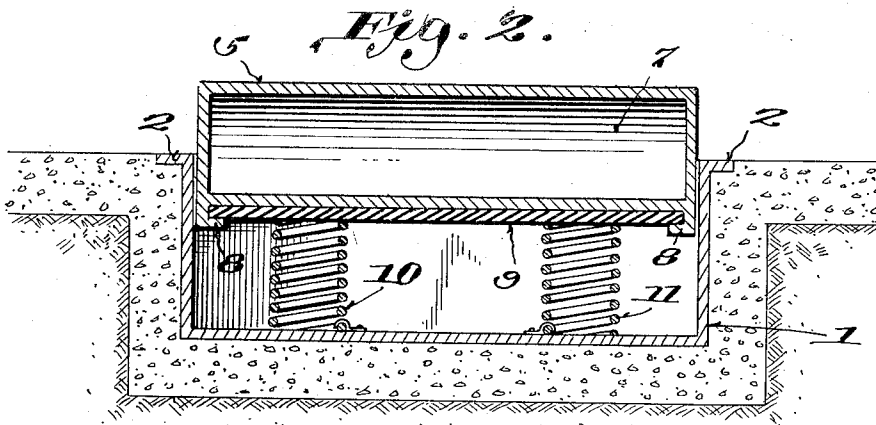
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UNITED STATES PATENT OFFICE

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SAFETY STOP SIGN

Application filed October 19, 1929. Serial No. 400,858.

Our invention relates to crossing or street intersection signals especially designed for safety control at the junctions of secondary streets and arterial or boulevard highways.

5 The particular object of our invention is to provide an improvement over the usual type of safety stop signs in that the trip member is fully capable of yielding reciprocation within a housing buried in the roadway. By this construction serious accidents are eliminated since there are no domes or rigid structures extending or projecting above the surface of the roadway.

15 In our construction, the trip member is allowed to yield downwardly should it be accidentally struck or run over by a passing vehicle. Furthermore, the trip member is provided with traffic indicia adapted to be plainly visible in the daytime and to be illuminated by the reflected light of the passing vehicle in the night time.

25 With the above objects in view, the invention consists in certain details of construction hereinafter set forth, reference being had to the accompanying drawings.

In the drawings:—

Figure 1 represents a plan view of a street intersection showing the location of the safety stop sign with respect to the streets;

30 Figure 2 is a vertical cross-section of the stop sign on the line 2—2 of Figure 1; and

Figure 3 is a vertical cross-section on the line 3—3 of Figure 1.

Referring to the drawings by reference characters, 1 represents an oblong housing which is constructed of metal and sunk into a well in the roadway provided for the purpose. The top of the housing has an outwardly disposed horizontal flange 2 which is flush with the surface of the roadway. Situated within the housing and in the upper portion thereof are two parallel guide rollers 3 and 4 spaced apart as shown and journaled to the inner sides of the housing so as to be rotatably mounted therein. The particular type of journaling forms no part of our invention but for purposes of illustration we have shown projecting shaft portions 12, forming a part of the rollers 3 and 4 and rotatably mounted in the housing 1. In

practice, these rollers are preferably made of heavy hollow metal pipe and when properly positioned, they are flush with the roadway. Situated between said guide rollers and extending about four inches above them is a hollow metal trip member 5, U-shaped in cross-section and extending the full length of the housing but adapted to be moved up and down in said housing in a manner later to be described. On the top surface of the trip member and on the side facing approaching traffic, suitable traffic indicia are provided and in the embodiment shown, the word Stop is provided. The letters are cut out of the metal as shown at 6 and the openings are filled in with heavy colored glass letters or glass crystals bearing facets so cut that the rays of light from the lights on the approaching vehicle will be reflected through the letters from the reflecting surface 7, provided on the interior of the trip member. In the day time, the colored glass letters show up prominently. The traffic indicia may assume any form desirable and the glass letters have been chosen merely as an example.

75 Secured to the under surface of the trip member by tongues 8 is a heavy rubber mat or diaphragm 9 horizontally disposed and adapted to make wiping contact with the inner side walls of the housing, for a purpose hereinafter to be explained. This rubber mat also acts as a resilient buffer member. The trip member 5 and the rubber mat are yieldably supported by heavy coil springs 10 and 11, resting on the floor of the housing and so tensioned that the trip member will normally extend about four inches above the surface of the roadway.

Usually, the housing is placed in the street at the mid line thereof, where said street begins to merge into an arterial highway. The trip member 5 is normally about eighteen inches long and consequently very little of the street is occupied by the sign. Vehicles approaching the arterial highway will come to a stop and may again proceed with caution into the arterial highway without striking the trip member 5. However, should a passing vehicle inadvertently pass over the trip member 5, the same will be depressed by the

load of the passing vehicle and will telescope into the housing, thereby compressing the springs 10 and 11. The wheels of the vehicle will thereupon bear upon the rollers 3 and 4 and the extreme upper portion of the trip member 5 and pass freely on to the roadway without damage to the sign or the vehicle. The trip member having been depressed, will seek to return to its original position and in so doing, the rubber mat will travel upwardly with the trip member and strike the lower surface of the rollers, thereby acting as a resilient buffer member and serving also as a means for expelling dirt and water which have collected in the housing. The dirt and water will be expelled over the edge of the housing and conducted away in any suitable manner. Therefore, it will be seen that the rubber mat 9 serves a two-fold purpose. The guide rollers not only provide a tread for the wheels of a passing vehicle but they also guide the trip member in its telescopic movement.

While we have shown and described a simple embodiment of the invention in all of its details, we may without departing from the spirit of the invention vary the structural features within the scope of the claims.

We claim:

1. A traffic sign, comprising a vertically disposed housing adapted to be sunk flush with a roadway, a pair of parallel spaced apart guide rollers secured to the upper marginal edge portion of said housing and rotatably mounted therein and lying in the horizontal plane of said roadway, a vertical yieldable trip member mounted between said guide rollers to project normally above the surface of said roadway and to telescope with said housing, said trip member being yieldably mounted so as to sink to the level of said roadway when depressed by the load of a passing vehicle and having traffic-directing indicia thereon.

2. A traffic sign, comprising a vertically disposed housing adapted to be sunk flush with a roadway, a pair of parallel spaced apart guide rollers secured to the upper marginal edge portion of said housing and rotatably mounted therein and lying in the horizontal plane of said roadway, a vertical yieldable trip member mounted between said guide rollers to project normally above the surface of said roadway and to telescope with said housing, and having secured thereto a horizontally disposed resilient buffer member adapted to contact with the inner vertical walls of said housing, said trip member being yieldably mounted so as to sink to the level of said roadway when depressed by the load of a passing vehicle and having traffic-directing indicia thereon.

3. A traffic sign, comprising a vertically disposed housing adapted to be sunk flush with a roadway, a vertical yieldable trip

member mounted to project normally above the surface of said roadway and to telescope with said housing, said trip member being hollow and having a light reflecting surface on its interior wall portion and traffic-directing indicia on its exterior wall portion adapted to be illuminated by reflected light emanating from said reflecting surface, said trip member being yieldably mounted so as to sink to the level of said roadway when depressed by the load of a passing vehicle.

In testimony whereof we affix our signatures.

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