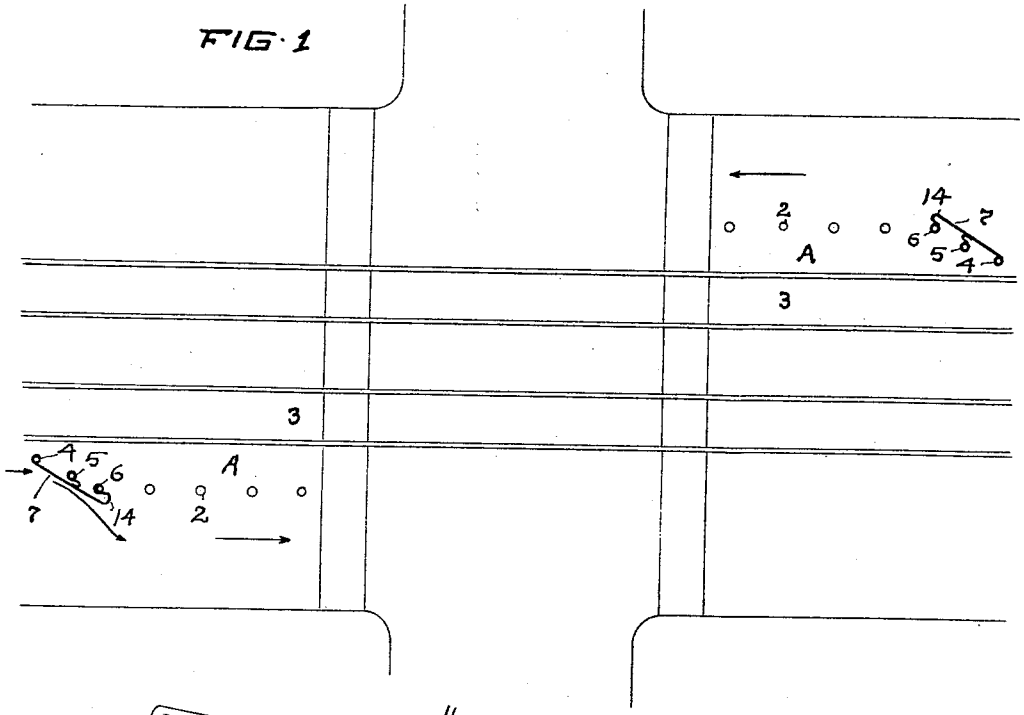
Aug. 9, 1932. J. MUELLER 1,870,639

GUARD FOR SAFETY ZONES

Filed July 14, 1930

FIG. 1



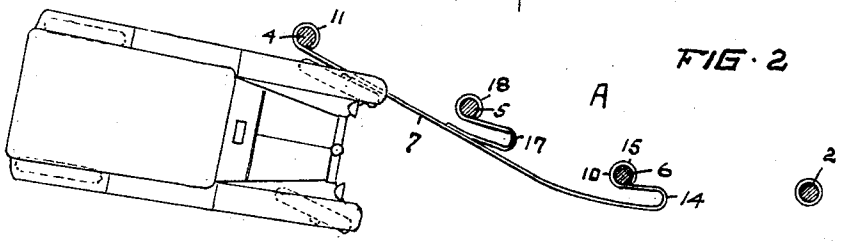


FIG. 2

FIG. 4

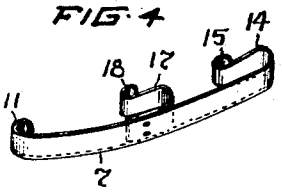
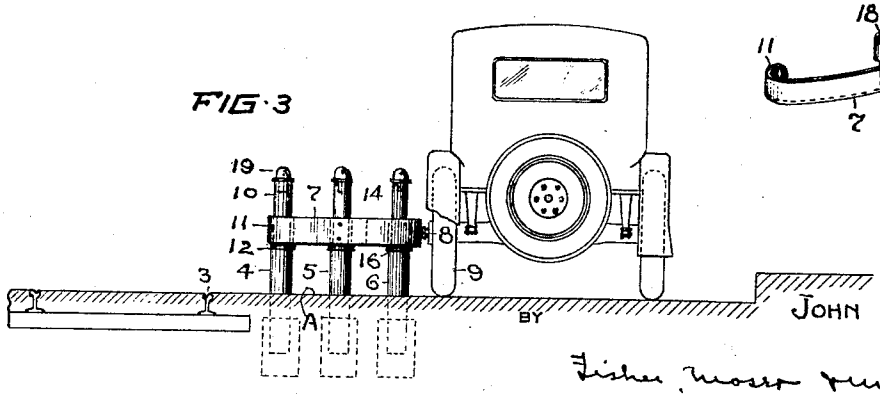


FIG. 3



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Patented Aug. 9, 1932 1,870,639

UNITED STATES PATENT OFFICE

JOHN MUELLER, OF CLEVELAND, OHIO

GUARD FOR SAFETY ZONES

Application filed July 14, 1930. Serial No. 467,721.

My invention relates to safety zones for highways, and in general my object is to provide a safety guard or fender for streets and roads on which both railway and automobile traffic is heavy and congested and accidents to both pedestrians and automobilists are especially apt to occur, and which guard or fender is especially constructed and arranged to protect from injury by motor vehicles the occupants of a given zone adjacent the railway tracks in the street and also prevent serious injury or damage to automobilists and their motor vehicles should the vehicle strike or collide with the guard or fender.

In the accompanying drawing, Fig. 1 is a plan view of a street having railway tracks and safety zone guards or fenders constructed and arranged according to my invention. Fig. 2 is a plan and sectional view, on a larger scale, of the guard or fender constructed according to my invention, and Fig. 3 an end view, of the same. Fig. 4 is a perspective view of the spring fender as it appears removed from the posts.

To protect pedestrians and persons boarding or alighting from street cars it is a customary practice to provide safety zones or islands in the street or roadway adjacent the street car tracks. Frequently, these zones or islands are marked and bounded by a straight row of upright posts located at spaced intervals parallel with the car tracks. Owing to lack of space only a relatively narrow zone or aisle is avalable next to the car track, and the end post or posts in the row bars the entrance of a vehicle into the safety zone. In some cases removable standards of relatively light weight are used to permit them to be moved easily and so that they may yield to the impact of a vehicle. In other instances heavy metal or wooden posts are permanently embedded in the pavement to resist the impact of a colliding vehicle. The present invention relates to the latter type of safety zone, the purpose being to provide a guard or fender for such fixed zones which will operate to deflect a moving motor vehicle without serious injury to the safety device itself or to the motor vehicle and its occupants, it being further understood that frequent collisions and many fatal accidents have occurred and are occurring daily in cities now using the so-called safety zones bounded by fixed barriers.

Thus, the invention consists first in providing a series of metal or wooden posts 2 at spaced intervals apart from and parallel with the car tracks 3 to establish a safety aisle or zone A for pedestrians and the persons alighting from or boarding the street cars, and in providing a plural number of auxiliary posts 4, 5, and 6, at spaced intervals at one end of the straight row of posts 2 on a line extending at an acute angle to the car tracks. The first post 4 is located relatively near the car rail or at such distance therefrom that a car or vehicle on the tracks may pass without striking it. The second post 5 in the angular row of posts is placed at one end of the zone or aisle approximately midway between the car track and the parallel row of posts 2 or the first post 6 in that row. Preferably three posts 4, 5, and 6, are stepped or offset in respect to each other and arranged on a substantially straight line diverging from the car track at an angle of 30° to 40° so that a colliding vehicle will be readily deflected to one side instead of meeting the barrier squarely and coming to an abrupt stop. To promote the lateral deflection of a motor vehicle a bumper rail or fender 7 is affixed to the stepped posts 4, 5, and 6, a predetermined distance above the ground or in substantially the same horizontal plane as the hub 8 of the wheel 9 of a motor vehicle. This bumper rail or fender is preferably made of spring steel and of substantial width, say five to six inches wide, and it may be secured to the posts in any suitable way. Preferably this rail or fender is supported yieldingly upon the post to cushion the shock and impact of a car colliding therewith. Thus, using round steel posts, having reduced upper portions 10 the bumper rail or fender plate is or may be formed with a circular eye or hinge portion 11 at one end adapted to sleeve over the reduced round portion 10 of the first post 4 where it may rest upon an enlarged annular shoulder 12 on the post. The opposite end of the rail or plate is

reverted or bent to provide a spring loop 14 having a round eye 15 adapted to sleeve over the reduced part of post 6 which is also provided with an annular shoulder 16 upon which the eye may rest rotatably or with a hinge movement for the spring loop 14. A loop-shaped spring 17 may also be affixed to the middle part of the bumper rail or fender plate and attached to the middle post 5 by providing a circular enlargement or eye 18 at the free extremity of the spring. The posts are also usually provided with removable caps 19, and when these are removed from posts 4, 5, and 6, the bumper or fender member may be slipped upon or off of the posts, and the installation of the device facilitated, including repairs and replacements.

A safety guard and fender device, so constructed, will not only deflect a vehicle to one side but will yield and cushion the shock also. Thus assuming the rail or fender plate is struck between its ends or at its loop-shaped end, it will yield and tend to swing toward the posts 5 and 6 with post 4 as the pivot or hinge member of the assembly, that is, the spring loop 14 at the end of the spring 17 at the middle will yield, and the rail or plate will turn on post 4, while the hub of the vehicle wheel will slide along the plate and deflect the vehicle away from the safety zone, and the angle of deflection being gradual so that damage to the vehicle will be either avoided or reduced to a minimum.

What I claim, is:

1. A safety-zone protecting device, comprising a barrier having upright posts at one end and a fender having slip connections with said posts and arranged at an inclination to deflect approaching vehicles.

2. In a safety-zone protecting device comprising shouldered posts and a spring fender having supporting portions adapted to sleeve over said posts, in rest position upon their shouldered portions.

3. A safety zone protecting device, comprising barrier posts and a metal fender strip extending athwart said posts and removably sleeved thereupon.

4. A safety zone protecting device, comprising a barrier, upright posts at one end of said barrier, and a bumper and fender sleeved over said posts and arranged to deflect approaching vehicles.

In testimony whereof I affix my signature.

JOHN MUELLER.