

Sept. 1, 1925.

1,551,556

T. GUST

SAFETY ZONE GUARD

Filed March 5, 1925

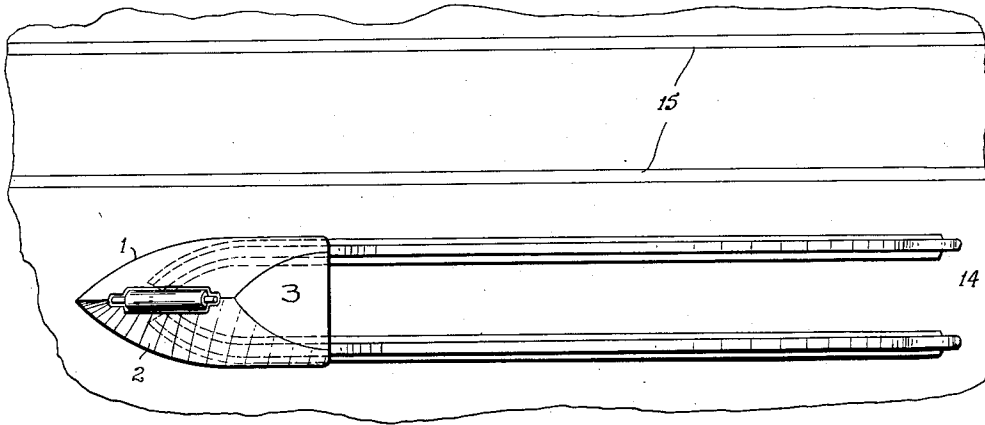


FIG. 1.

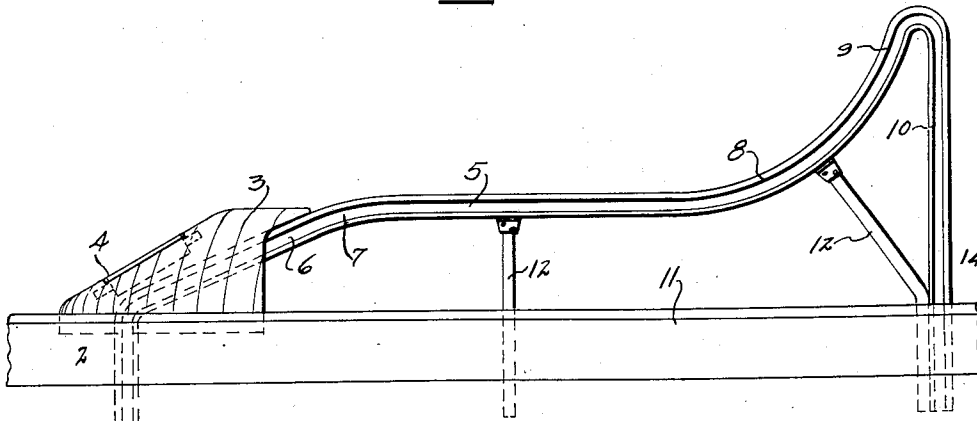


FIG. 2.

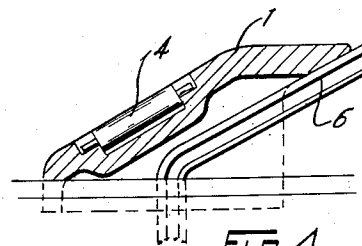


FIG. 4.

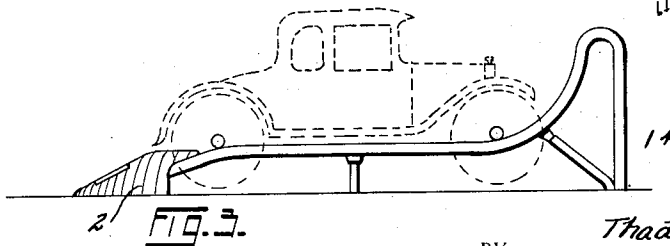


FIG. 3.

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UNITED STATES PATENT OFFICE.

THADDEUS GUST, OF DETROIT, MICHIGAN.

SAFETY-ZONE GUARD.

Application filed March 5, 1925. Serial No. 13,092.

To all whom it may concern:

Be it known that I, THADDEUS GUST, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Safety-Zone Guard, of which the following is a specification.

The safety zone guard to which this invention refers is designed primarily to protect pedestrians standing in safety zones in the roadway waiting for street cars, or those who have just alighted.

I am aware that at the present time some safety zones are fenced in by posts placed at intervals so as to form a protected strip between the car tracks and that part of the roadway on which other traffic may travel; while others merely consist of pieces of pavement, forming islands, raised above the road level. Owing to the increasing amount of recklessness displayed by drivers of automobiles neither of these types of safety zones are by any means safe places to stand; posts are being broken, raised pieces of pavement run over, and pedestrians injured and killed at alarmingly frequent intervals.

The present invention aims to provide a safety zone guard having a buffer, shaped somewhat on the lines of a locomotive pilot, extending towards the direction of oncoming traffic. So that should a wheel of a car strike it the car will either be forced to one side of it or else compelled to straddle the buffer, according to which wheel strikes which side of the buffer. Should the car straddle the buffer, and its speed be great enough, it will continue to travel forward on guides which extend rearwardly from the buffer, first with its front wheels off the ground, and subsequently with its rear wheels off the ground as well. Travelling thus on its axles the car will quickly lose its impetus, and it will probably have come to a stop before the front axle reaches upward curves in the guides, part of which the front axle would have to climb before the front fenders struck the upwardly projecting guide ends which constitute a positive stop.

Vehicles must therefore either pass on one side or the other of the device, or else run up onto the guides and be stalled thereon; and in either case people standing immediately behind the device would be effectively protected from onrushing vehicles.

The invention which consists in certain

novel construction and combination of parts, is hereinafter more fully described with the aid of the accompanying drawings.

In the drawings:

Figure 1 illustrates a plan view of the invention in position adjacent to street car tracks.

Figure 2 is a side elevation.

Figure 3 is a diagrammatic view showing a car stalled on the device, and

Figure 4 is a detail.

Referring now more particularly to the drawings, 1 designates a buffer which is on ground level at the front. The downwardly and outwardly flared sides 2 of which are united towards the rear by a substantially horizontal portion 3, which is of increased width at the back. At the junction of the forward portions of the sides 2, and substantially on the centre line of the buffer, I sometimes insert an inclined roller 4, which further tends to force a wheel striking it either to one side or the other. This, however, may be dispensed with if desired, as the shape of the buffer along the centre line can be such as to achieve the same purpose.

The lower portions of the sides of the buffer 1, which may be of metal such as cast steel, or of concrete if desired, must be firmly imbedded in the road. The rear of the horizontal portion 3 is substantially flush with the front of the exposed portions of the guide rails 5 and is usually braced thereby. The guide rails, which are so spaced as to fit between the wheels of a car, are, at the point where the buffer terminates, of such a height that the axles of a car will pass over them without coming in contact with them, as the function of the buffer is either to divert the car sideways, or else to centre it over the device.

The front ends 6 of the guide rails slope downwards and are imbedded in the road, and rearwardly they rise to the curves 7, from which points they continue at such a height that the axles of a car would rest on them with the wheels off the ground. The back of the guides have upward curves 8, upstanding portions 9 adapted to form stops, and terminate in downward portions 10 which are imbedded in the roadway. The road level being shown at 11. The guides I generally make out of ordinary railroad rails bent to the desired shape, and supported as by braces 12. Street car tracks are shown at 15.

If the left hand wheel of a car strikes the right side of the buffer, or the right hand wheel the left hand side of the buffer, the car will be deflected either to the right or left side of the device; but should the left hand wheel strike the left side or the right hand wheel the right side, the result will be that the car will be more or less centred over the device. In the latter case as the car continues to move forward the front axle will run over the guide rails to a point just in front of the curves 7, where the height of the guide rails becomes greater than the distance from the underside of the axle to the ground, from that point on the front axle slides along the horizontal portions of the guide rails. If the speed of the car was sufficiently great it will continue to travel forward until the rear axle is also off the ground and supported by the guide rails. Should the car not have been brought to a stop by that time the front axle will start to move up the curved guide rails 8 which will usually succeed in stopping a car that was travelling at an excessive speed, but if the upward curved portions are not sufficient the front fenders of the car will come in contact with the positive stops 9, though it is only in very exceptional cases that they will be brought into play.

From the foregoing it can be clearly seen that pedestrians standing at 14 would be effectively shielded from onrushing traffic.

While the preferred embodiment of my invention has been herein described, it is understood that the structural elements are susceptible to such changes as fall within the scope of the appended claims.

What I claim as my invention, and desire to secure by Letters Patent is:—

1. A device of the character described comprising a buffer adapted to divert the course of wheels of an oncoming vehicle, so that the latter must either pass to one side of said buffer or straddle it, according to which wheel strikes which side of said buffer, in combination with rearwardly extending guides from the back of said buffer, having substantially horizontal portions of such height that the axles of a car straddling them would bear thereon with the wheels off the ground.

2. A device of the class described comprising a buffer facing the direction of oncoming traffic, said buffer having forwardly and outwardly inclined sides adapted to divert the course of wheels striking it, and two substantially parallel guide rails extending rearwardly from the back of said buffer, and having substantially horizontal portions of such height that the axles of a car straddling them would bear thereon with the wheels off the ground.

3. A device as described in claim 2, wherein the guide rails have upward curves and a stop towards the rear, and terminate in downward portions which form a stand.

4. A device of the class described comprising a buffer firmly secured in a roadway, and two parallel guide rails having their front ends embedded in the roadway and having upwardly tapered portions under said buffer which continue to slope upwards beyond said buffer to horizontal portions, the latter terminating in upwardly curved portions which are doubled back on themselves in a substantially vertical direction and have the lower ends firmly embedded in the roadway.

5. A device of the class described comprising a buffer adapted to divert the course of a wheel of an oncoming vehicle, and having a height less than the distance from the underside of the axle of the vehicle to the roadway, in combination with guide rails extending rearwardly from said buffer and having a rearward portion of greater height than the distance from the underside of the axle of the vehicle to the roadway.

6. A device of the class described comprising a buffer facing the direction of oncoming traffic, said buffer having downwardly and outwardly inclined sides adapted to direct the course of wheels striking it, two parallel guide rails extending rearwardly from the back of the buffer, and an inclined roller arranged longitudinally substantially on the centre line of the forward portion of the buffer.

7. A device as described in claim 2, wherein both the buffer and the guide rails are firmly imbedded in a roadway, and the buffer is also braced by the guide rails.

THADDEUS GUST.