Dec. 17, 1935. A. E. BRICKMAN ET AL 2,025,013

GUARD RAIL

Filed Aug. 14, 1934

Fig. 3.

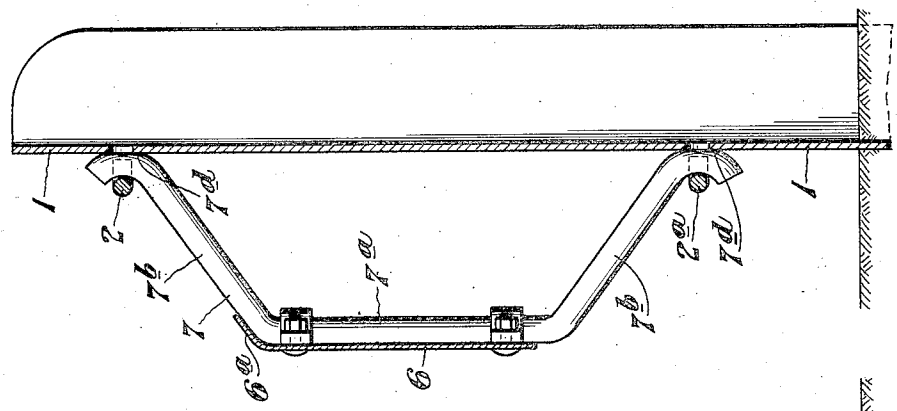


Fig. 2.

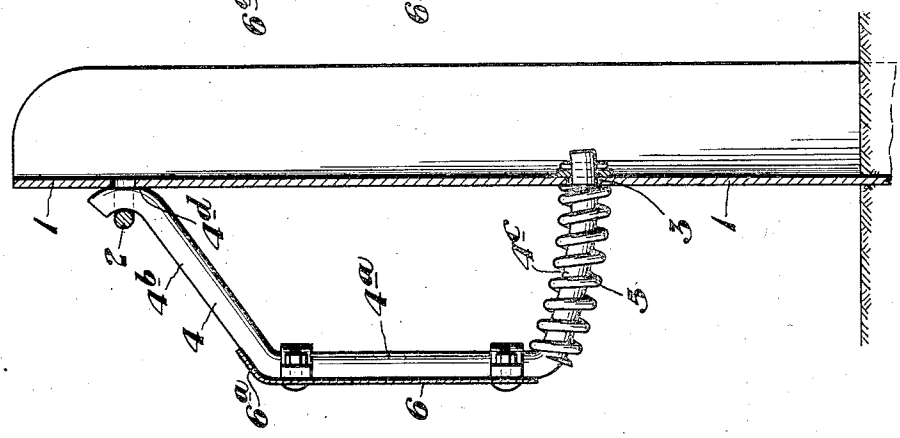
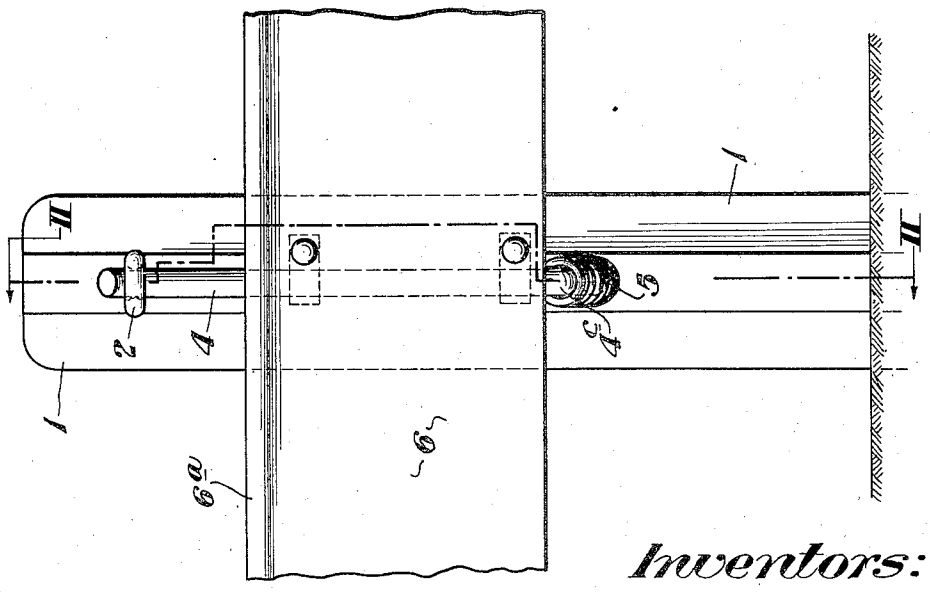


Fig. 1.



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GUARD RAIL

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Application August 14, 1934, Serial No. 739,829

4 Claims. (Cl. 256—13.1)

This invention relates to guard rails of the type using flat metal strips, one of the objects being to diminish the tendency for a colliding vehicle to climb over the protecting strips. Another object is to distribute tension applied to the strips by a colliding vehicle to a number of the supporting posts. Other objects may be inferred.

Referring to the accompanying drawing:

Figure 1 is an elevation of an example of the invention.

Figure 2 is a cross-section taken from the line II—II in Figure 1.

Figure 3 is a cross-section of a modification.

More specifically, the guard rail illustrated by Figures 1 and 2 includes a post 1 having an eye-bolt 2 and a hole 3 below this eye-bolt. A bar 4 is formed so as to have a straight portion 4^a and other portions 4^b and 4^c extending away from this straight portion, the portion 4^b being hooked and received by the eye-bolt 2 and the other portion 4^c being curved and received by the hole 3.

A compression spring 5 encircles the portion 4^c and bears against the straight portion 4^a and the post 1. The hole 3 is sufficiently over-size to permit horizontal swinging of the bar 4. A flat metal strip 6 having a backwardly angling top portion 6^a is fixed to the straight portion 4^a, the portions 4^b and 4^c being proportioned and arranged to normally hold the straight portion 4^a vertically.

It is to be understood that the drawing illustrates only a portion of the road guard, the post 1, bar 4 and its associated elements, and the strip 6 being but one combination of a series of such combinations.

Figure 3 shows the post 1 and eye-bolt 2, and a second eye-bolt 2^a which is positioned like the hole 3 is in the first described construction. A bar 7 has a straight portion 7^a and portions 7^b extending away therefrom which have hooked ends received by the eye-bolts 2 and 2^a. The strip 6 is mounted by the straight portion 7^a of this bar, the portions 7^b being proportioned to hold this straight portion vertically.

In both constructions the hooked ends of the bars respectively have flattened portions 4^d and 7^d which bear against the posts 1. This reduces the tendency of the hooked ends to slide axially through the eye-bolts yet permits them to readily swing in a horizontal direction.

In the case of the first construction, when a colliding vehicle strikes the strip 6 the spring 5 compresses and the lower end of the bracket provided by the bar 4 swings towards the post 1, causing the strip to leave its normally vertical position and apply a downwardly wedging action on the colliding vehicle.

This materially reduces the vehicle's tendency to climb over the guard rail. The portion 6^a of the strip 6 tends to prevent any cutting action which might otherwise result when the strip assumes its angular position. Furthermore, at the time of the collision the bracket will swing horizontally so as to permit transmission of the tension longitudinally along the strips and so to at least several others of the posts.

The construction shown by Figure 3 does not produce the downwardly wedging action but it can swing so as to permit the transmission of the tension along the strip to a series of the posts. In case the colliding vehicle careens slightly the angular top portion 6^a of the strip 6 will tend to prevent damage. Furthermore, it will prevent persons from being cut should they be thrown from the vehicle.

We claim:

1. A guard rail including the combination of a post, an offset bracket with its open end pivotally mounted by said post so that its lower end may move and so that it may swing in its entirety in a horizontal direction, a spring elastically holding the lower end of said bracket from moving towards said post and a metal strip mounted by said bracket.

2. A guard rail including the combination of a post having an eye-bolt and a hole below said eye-bolt, a bar having a straight portion and other portions extending away therefrom, one of said portions being hooked and received by said eye-bolt and the other of said portions being curved and received by said hole, a compression spring encircling the second named extending portion and bearing against said straight portion and said post, said hole being sufficiently over-size to permit horizontal swinging of said bar, and a flat metal strip fixed to the straight portion of said bar, said extending portions being proportioned and arranged to normally hold said straight portion vertically.

3. A guard rail including the combination of a post having an eye-bolt and a hole below said eye-bolt, a bar having a straight portion and other portions extending away therefrom, one of said portions being hooked and received by said eye-bolt and the other of said portions being curved and received by said hole, a compression spring encircling the second named extending portion and bearing against said straight portion and said post, said hole being sufficiently oversize to permit horizontal swinging of said bar,

and a flat metal strip fixed to the straight portion of said bar, said extending portions being proportioned and arranged to normally hold said straight portion vertically and said strip having a backwardly angling top portion.

4. A guard rail including the combination of a post, an offset bracket with its upper end pivotally mounted by said post so that its lower end may move towards said post, a spring elastically holding the lower end of said bracket from moving towards said post and a metal strip mounted by said bracket.

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