

Nov. 22, 1927.

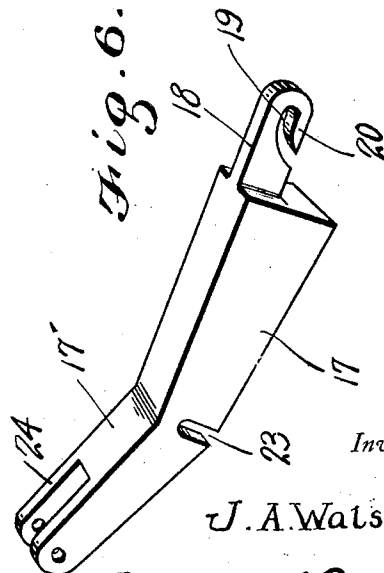
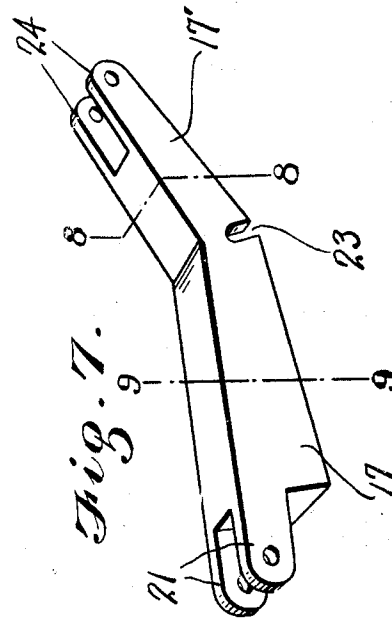
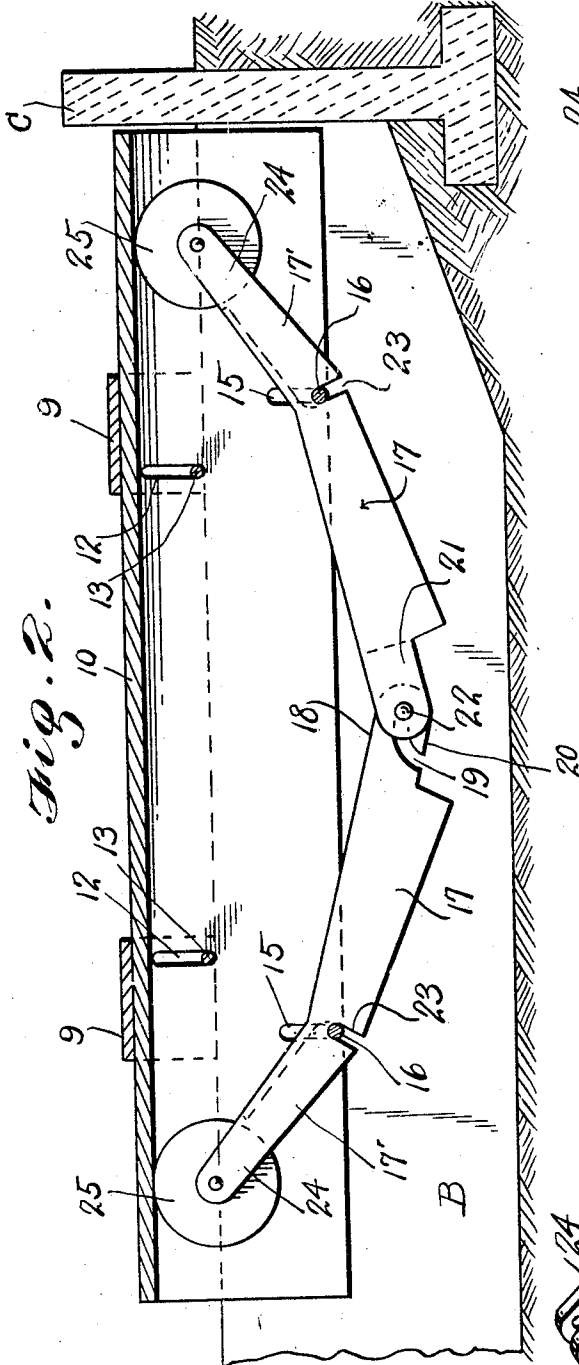
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1,649,877

HIGHWAY OBSTRUCTION

Filed May 31, 1927

3 Sheets-Sheet 2



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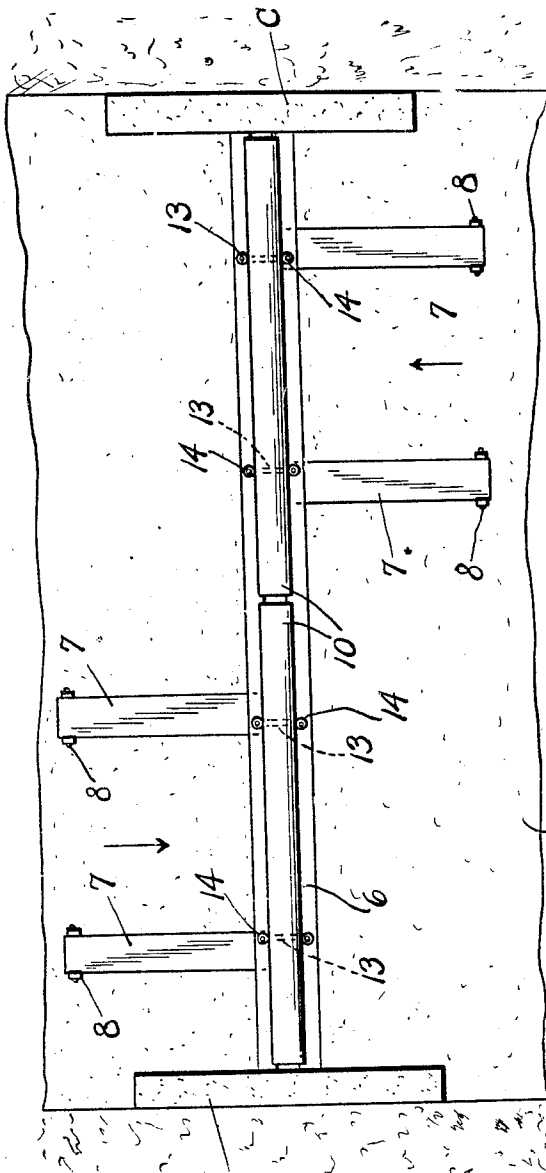


Fig. 4.

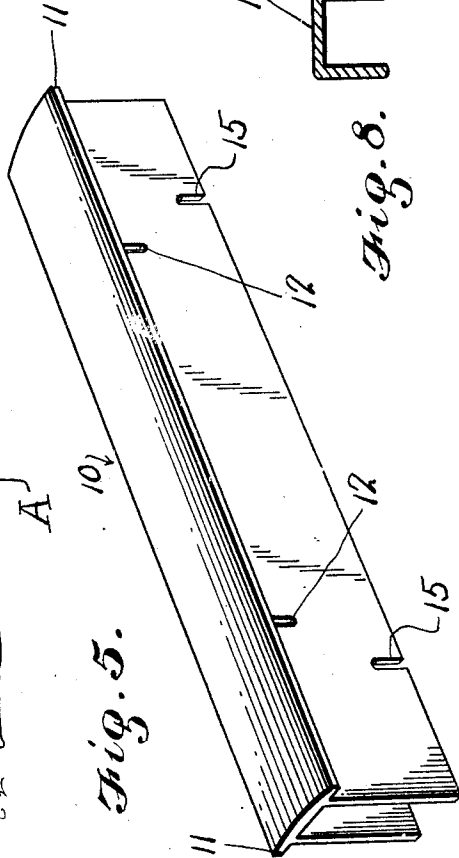


Fig. 5.

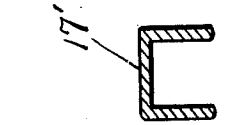
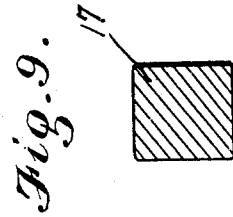


Fig. 8.

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UNITED STATES PATENT OFFICE.

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HIGHWAY OBSTRUCTION.

Application filed May 31, 1927. Serial No. 195,350.

This invention relates to an obstruction mechanism adapted to be incorporated in a highway adjacent the railroad crossing to compel vehicles approaching the crossing to slow down in order that the machines may be brought to a stop before passing onto the tracks if necessary.

In carrying out the present invention the roadway is provided transversely with a pit within which are arranged means normally projecting above the surface of the pit to cause the obstruction within the road, said means being depressible into the pit to permit the vehicles to pass thereover without causing the undue bumping of the car.

The invention further includes means for normally maintaining the obstruction unit above the road surface so that the same will always be in position and visible to the drivers of oncoming machines.

In the drawings wherein like reference characters indicate like parts throughout the same:

Figure 1 is a longitudinal section through a roadway adjacent a track crossing, said roadway being equipped with my obstruction means.

Figure 2 is an enlarged fragmentary transverse section through one side of the roadway and at the point wherein the pit is provided for more clearly disclosing one of the obstruction units normally disposed above the pit, and this by reason of the weight means disclosed in said figure.

Figure 3 is a top plan of the road at the point wherein the present equipment is provided for more clearly disclosing the pairs of track rails at opposite sides of the road center upon which the wheels of the vehicles will ride to cause the depression of the obstructing unit within the pit so that the machines may conveniently move thereover.

Figure 4 is a similar view, said track rails being removed, this view indicating the means whereby the outer ends of the track rails may be properly pivoted to the road surface.

Figure 5 is a perspective view of one of the boxings forming part of the invention.

Figures 6 and 7 are perspectives of the character of weighted members associated with each of the obstructing units per se in such a manner as to cause the obstructing

member to be retained above the road surface, but yet to permit the same to be depressed, and

Figures 8 and 9 are transverse sections through the member indicated in Figure 7 and taken substantially upon the lines 8—8 and 9—9 respectively, it being however understood that each of the weight members are of generally identical construction.

Now having particular reference to the drawings, A designates a highway which in the present instance is constructed at a point adjacent a railroad crossing with a transversely extending pit B at the opposite ends of which are longitudinally extending walls C—C to prevent the dirt at the side of the road from filling up said pit B. As more clearly indicated in Figure 1 this pit B is constructed with a box-like metallic lining the upper longitudinal edges of which are flanged as at 6—6 which flanges are disposed upon the road surface at opposite sides of the pit B as clearly indicated in Figures 1, 3 and 4. At opposite sides of the center of the road there is laid upon the surface thereof pairs of spaced metallic boardings 7—7, the inner edges of these boardings being arranged beneath the flanges 6—6 and being bolted or riveted thereto. The metallic boards 7—7 at one side of the pit extend in one direction while those at the opposite sides are at the opposite side of said roadway, as clearly indicated in Figure 4.

The outer ends of these boardings 7—7 are provided at opposite edges with upstanding ears 8—8 to permit the pivotal attachment of vehicle wheel track rails 9 thereto, one rail being incident to each boarding 7 as clearly indicated in Figure 3.

Arranged within the pit B are a pair of inverted U-shaped boxings 10—10 separated at their inner ends a slight distance as indicated in Figure 4, the length of these combined boxings being such as to completely enclose the top side of the pit B. The top walls of these boxings are of rounded contour while the longitudinal edges of said top walls are flanged as at 11—11 so that the width of the top wall will be greater than the width of the pit, see Figure 1. The side walls of each boxing 10 are formed adjacent the top wall with spaced pairs of registering slots 12—12, 12—12 through which extend

tie rods 13—13, the ends of which are eyed as at 14—14, and connected to the flanges 6—6 of the pit lining 5 by reason of the connections between the flanges and said boardings 7—7, see Figures 1 and 4. Furthermore, outwardly of these slots 12—12 said side walls of each boxing are formed at their lower edges with registering slots 15—15, 15—15 through which extend tie rods 16—16 serving to interconnect and brace the side walls of the pit lining 5.

Complementary to each boxing 10 is a pair of weight members 17—17. Each member is of solid bar formation preferably of angular shape in cross section, the inner end of one of the weight members being provided with a tongue 18, the outer end of which is formed with a curved slot 19 opening at the lower edge of the tongue for providing a hook 20 upon the end of the tongue. The adjacent end of the other weight member 17 is formed at its edge sides with spaced tongues 21—21 having registering openings through which is arranged a pin 22, and over which the hook 20 of the tongue 18 of the other weight member is engaged to provide a pivotal connection between said weight members.

The outer ends of these weight members 17—17 are formed with inclined longitudinal extensions 17'—17' which are of inverted U-shape in cross section as indicated in Figure 8. The side walls of the extension 17' of each weight member 17 are formed at their lower edges with notches 23 for receiving the respective tie rods 16—16, thereby providing pivotal support for said weight members. The outer ends of the extensions 17' are bifurcated as at 24—24 for receiving rollers 25—25 which rollers have engagement with the under side of the top wall of the respective obstruction 10. By reason of these weight members 17—17 the rollers 25—25 will always be in contact with the obstructions 10—10 and due to the fact that the inner ends of the weight normally hang downwardly upon their pivot 16—16 said obstructions will be maintained normally in projected position with respect to the pit 5. However, these obstructions may be depressed in an obvious manner and as soon as the weight thereon is released they will immediately rise to the position more clearly indicated in Figures 1 and 2.

The inner ends of the vehicle wheel track rails 9 are of curved formation and rest loosely upon the top walls of the obstructions 10—10 and obviously the vehicles riding upon the track rails 9—9 at opposite sides of the pit B will cause the obstructions to be depressed allowing the vehicles to readily pass thereover.

The side walls of the pit lining 5 are suitably anchored to the earth by tie rods 26, while the outer ends of the metallic board-

ings 7 are anchored to the ground by similar tie rods 27.

By reason of the foregoing description when considered in conjunction with the accompanying drawings the specific operation and construction of this improved device will be readily appreciated by those skilled in the art, and even though I have herein shown and described the invention as consisting of certain detail structural elements it is nevertheless to be understood that some changes may be made therein without affecting the spirit and scope of the appended claims.

Having thus described the invention, what I claim as new is:—

1. In an obstruction device for roadways wherein the roadway is provided with a pit, a member arranged longitudinally within the pit, weighted arms longitudinally arranged within the pit, pivotal connections between the arms and the interior of the pit, a pivotal connection between the inner ends of said arms and rollers at the outer ends of said arms having permanent contact with the member to cause the normal raising of the member partially above the top of the pit and vehicle operated means for depressing the member.

2. In an obstruction device for roadways wherein the roadway is provided with a pit, a member arranged longitudinally within the pit, weighted arms longitudinally arranged within the pit, pivotal connections between the arms and the interior of the pit, a pivotal connection between the inner ends of said arms and rollers at the outer ends of said arms having permanent contact with the member to cause the normal raising of the member partially above the top of the pit, and means for limiting the vertical movement of the member within said pit and vehicle operated means for depressing the member.

3. In an obstruction device for roadways wherein the roadway is provided with a pit, a member arranged longitudinally within the pit, weighted arms longitudinally arranged within the pit, pivotal connections between the arms and the interior of the pit, a pivotal connection between the inner ends of said arms and rollers at the outer ends of said arms having permanent contact with the member to cause the normal raising of the member partially above the top of the pit, means for limiting the vertical movement of the member within said pit, and a pair of track rails pivoted at their outer end to the roadway adjacent the pit, the inner ends of said rails being loosely arranged upon the top side of the member to facilitate a vehicle passing over said member.

In testimony whereof I affix my signature.

JOSEPH A. WALSTON.