

March 3, 1931.

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1,795,228

FLEXIBLE ROADWAY

Filed July 11, 1930

2 Sheets-Sheet 1

Fig. 1.

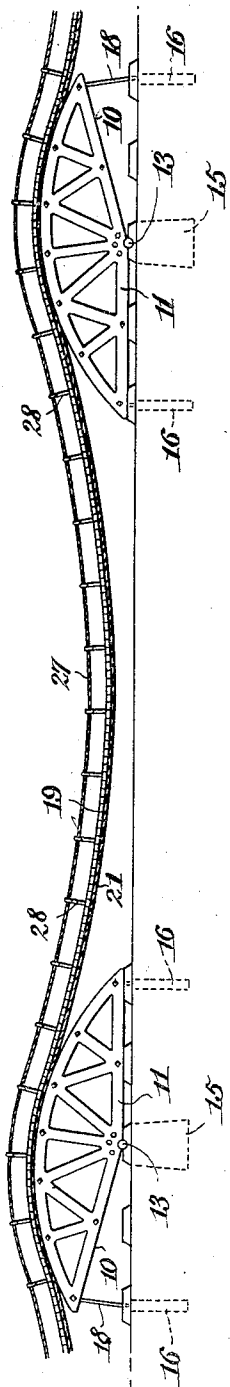
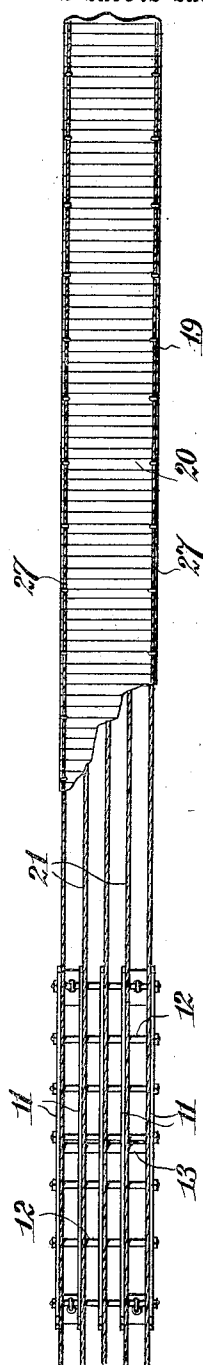


Fig. 2.



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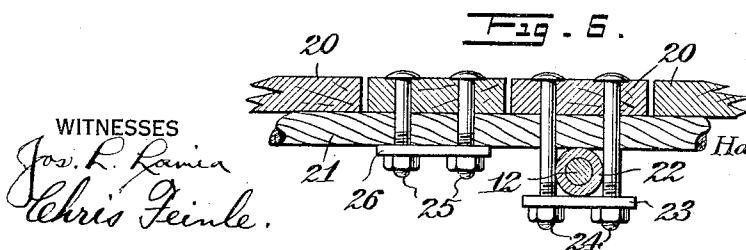
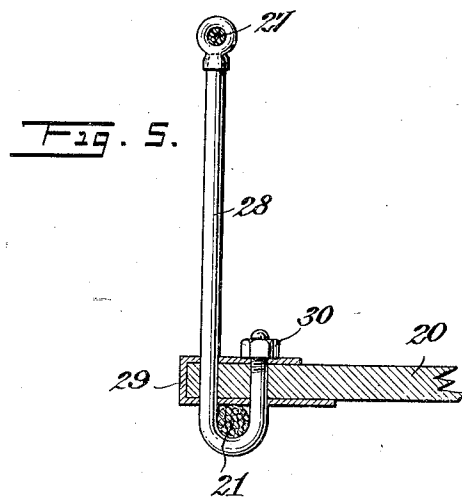
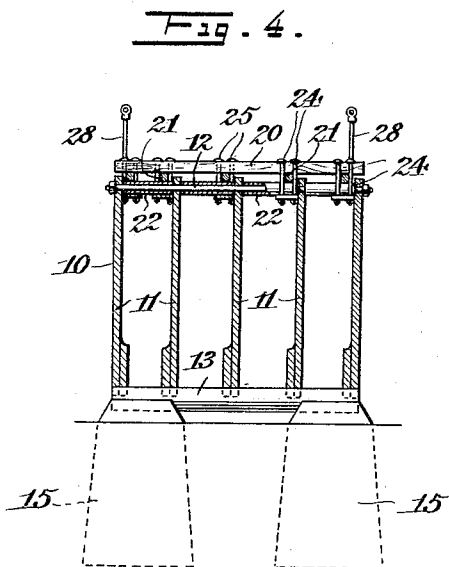
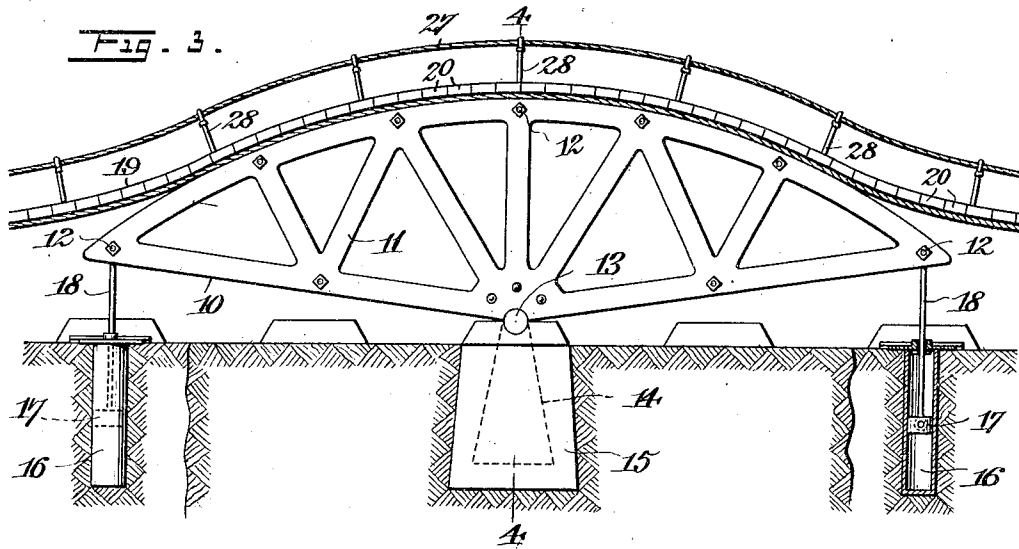
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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

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## FLEXIBLE ROADWAY

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This invention relates to a roadway construction.

The invention has for its general object the provision of a roadway traversable by power driven vehicles or automobiles, which is constructed to lower and rise at different points by the weight and translatory movement of the vehicles traveling on it, to give to the vehicles a wave-like motion for the amusement and pleasure of the occupants of the vehicles.

The roadway of the character mentioned may be built as an adjunct of public highways to be used by those traveling in automobiles, or it may be built in amusement parks for use in conjunction with power driven vehicles open to use by the public. The use of the roadway may be subject to the payment by the users of a toll for the maintenance or upkeep thereof, and also for profits for the owners in return for the amusement and pleasure derived by the users.

The nature of the invention and its distinguishing features and advantages will appear when the following specification is read in connection with the accompanying drawing, in which—

Figure 1 is a side elevation of a section of a flexible roadway constructed in accordance with the invention;

Figure 2 is a plan view with parts removed to show underlying structure;

Figure 3 is an enlarged side elevation of one of the rockers and associated parts certain of which are shown in section;

Figure 4 is a transverse section on the line 4—4 of Figure 3;

Figures 5 and 6 are sections showing certain details.

Referring now more particularly to the drawings, it will be apparent that in accordance with the invention use will be made of a series of rockers 10 arranged at preferably regular intervals along the ground. Each of the rockers in the present instance consists of segmental parts 11 presenting an upper convex contour. The parts 11 are tied or fastened together in spaced side by side relation in a suitable manner such as by tie rods or bolts 12 secured in place by nuts or the like.

Each rocker is mounted for rocking movement on means in the form of a transversely disposed shaft 13 secured to the member 11, and said shaft 13 is journaled on bearings 14 each of which is anchored in a suitable concrete base or pier 15 fixed or set in the ground.

In accordance with another feature of the invention each rocker is cushioned at each end so as to prevent sudden rocking movement of the rocker, but to make it rock smoothly under the weight and momentum of an automobile. This is accomplished in the present instance by the provision of pneumatic-mechanical devices each consisting of a cylinder 16 set in the ground, a piston 17 which operates in the cylinder, a rod 18 pivotally connected with the piston, and the rod 18 being pivotally connected with one of the rods 12. There are two devices applied to each end of each rocker.

In accordance with another feature, there is provided a continuous flexible structure 19 which is supported by the rockers 10, and which is traversable by the vehicles. The structure 19 comprises planks or the like 20 and stout cables 21 on which said planks are fastened transversely thereof. The cables 21 are laid side by side in spaced relation, and each cable being secured in any practical manner to the uppermost and centrally located rod 12 of each rocker 10, as by the use of sleeves 22 arranged on the rod 12, plates 23, and nuts and bolts 24, the latter extending through certain of the planks 20, and also through the plates 23, the latter being disposed in contact with the sleeves with bolts 24 on opposite sides of the sleeves. Each plank 20 is secured to the cable 21 by nuts and bolts 25 and plates 26. The structure 19 is preferably provided with a guard rail or cable 27 along each side thereof, which is supported by posts 28 arranged at regular intervals. Each post 28 is of J-shape and extends through a metal end member 29 on the particular plank in engagement with one of the cables 21, and secured in place by a nut 30 and its threaded end.

It is to be understood that the structure 19 as applied to the rockers 10 presents a cer-

tain amount of slack between the rockers. The provision and arrangement is such that an automobile traveling along on the structure 19 will be compelled to follow an undulated course, or in other words, will be  
 5 caused to travel hill and dale, or be given a wave-like motion, by reason of the vertical deflection of the structure 19, due to the rocking movements of the rockers 10 and the  
 10 weight and momentum of the automobile.

What is claimed is:

1. A roadway including a flexible road structure traversable by a vehicle, and spaced rockers having upper curved surfaces sup-  
 15 porting said structure so that it may flex vertically to give a wave-like motion to the vehicle while traveling on said structure.

2. A roadway comprising a continuous flexible structure traversable by a wheeled  
 20 vehicle, a series of spaced rockers mounted on means having fixed relation to the ground, said structure being secured to said rockers and having an amount of slack between said rockers, the provision and arrangement be-  
 25 ing such as to give a wave-like motion to the vehicle while traveling on said structure.

3. A roadway comprising a continuous flexible structure traversable by a wheeled  
 30 vehicle, a series of spaced rockers mounted on means having fixed relation to the ground, said structure being secured to said rockers and having an amount of slack between said rockers, the provision and arrangement be-  
 35 ing such as to give a wave-like motion to the vehicle while traveling on said structure, and means cushioning the rocking movement of each of said rockers.

4. A roadway comprising a continuous flexible structure traversable by a wheeled  
 40 vehicle, a series of rockers arranged at regular intervals along the ground, each rocker having an upper convex contour, said flexible structure being arranged on said rock-  
 45 ers, means securing said structure to each of said rockers to prevent displacement of said structure but allowing said structure to flex relatively to said rockers, the provision and arrangement being such as to give a  
 50 wave-like motion to the vehicle while traveling on said structure.

5. A flexible roadway comprising rockers arranged at intervals on the ground, cables  
 55 laid side by side in spaced relation across said rockers and secured thereto with slack between the rockers, and planks or the like se-  
 60 cured on top of the cables across the same.

6. A flexible roadway comprising rockers arranged at intervals on the ground, cables  
 60 laid side by side in spaced relation across said rockers and secured thereto with slack between the rockers, planks or the like se-  
 65 cured on top of the cables across the same, and guards cables or the like secured at op-  
 70 posite sides of the roadway to certain of the

planks and certain of said first mentioned cables.

7. A flexible roadway comprising rockers arranged at intervals on the ground, cables  
 70 laid side by side in spaced relation across said rockers and secured thereto with slack between the rockers, and roadway members secured to and supported by said cables  
 75 which form flexible means traversable by wheeled vehicles.

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