

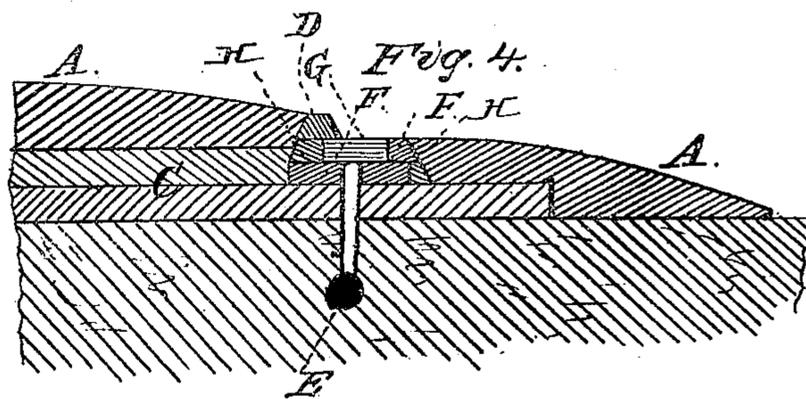
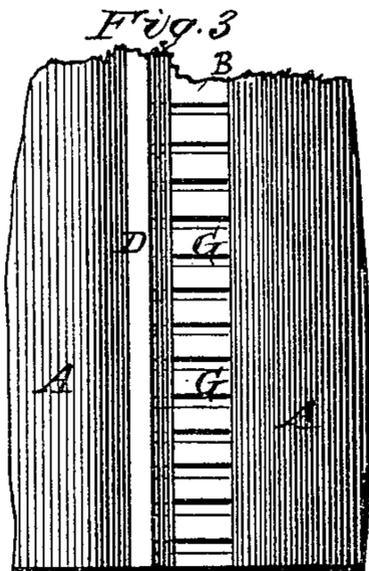
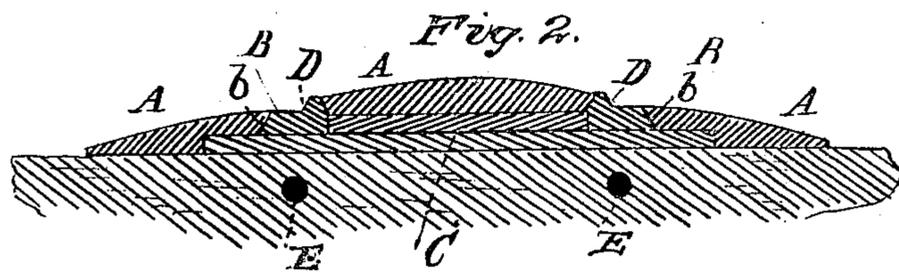
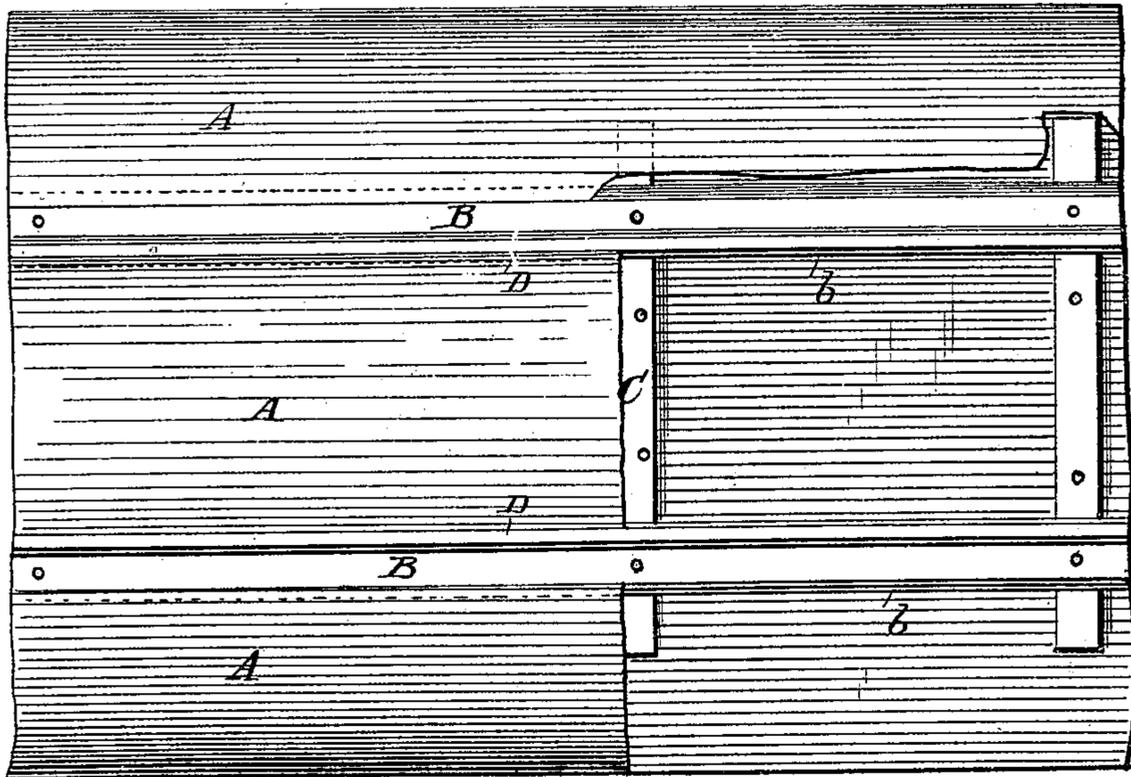
(No Model.)

T. S. MILLS.
Road or Tramway for Vehicles.

No. 238,419.

Patented March 1, 1881.

Fig. 1.



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UNITED STATES PATENT OFFICE.

THOMAS S. MILLS, OF NORMAL, ILLINOIS, ASSIGNOR OF ONE-HALF TO
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ROAD OR TRAMWAY FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 238,419, dated March 1, 1881.

Application filed October 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, THOS. S. MILLS, of Normal, in the county of McLean, and in the State of Illinois, have invented certain new and useful Improvements in Roads or Tramways for Vehicles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, and in which—

Figure 1 is a top or plan of my improved road or tramway for vehicles; Fig. 2, cross-section of Fig. 1; Figs. 3 and 4, plan and cross-section of a modification of my invention.

My invention relates to certain new and useful improvements in the class of roads having a tramway or track for the wheels of vehicles to run on; and the invention consists in the novel constructions and combinations of parts, all as will be hereinafter fully described, and specifically pointed out in the claims.

In the drawings, A represents the usual road-bed, rounded off or inclined in opposite directions between the tramway or track B, said space between the tramway or track being filled with sand, gravel, or other suitable material, or paved, if desired. The road-bed outside of the tramway or track inclines downward toward the gutters in the usual manner for carrying the surface-water thereto.

C represents cross-ties arranged below the surface of the road-bed, and upon which the stringers or track B is laid, and the stringers or track may be constructed of wood, stone, brick, iron, or other suitable material. The outer edges of the stringers are inclined or beveled off, as shown at *b*, Fig. 2, and on their inner edges are laid rails D, beveled off on both sides, so that vehicles may easily and readily turn off the tramway or track at any place desired. The cross-ties C, upon which the stringers rest, come up between the rails to the bevel sides thereof, while the ends of said ties project outside of the stringers, so that the wheels of vehicles in turning on and off the tramway or track when the road-bed is soft may be prevented from rutting or cutting into the road-bed at the sides of the stringers,

as the ties in such case will elevate the wheels of the vehicle to the inclined part of the stringers, and thus facilitate them in getting on and off the tramway or track.

Arranged directly below or under each stringer, and parallel therewith, is a drain, E, constructed of brick or other suitable material, for the purpose of carrying off the surface-water between the tramway or track.

By the herein-described construction the road-bed for the animals is higher than any other portion thereof, thus permitting the water to run off toward the tramway or track; and as the drains E are directly below the stringers, where the soil is not packed by the feet of the animals, the road-bed at such points is more porous than in any other part thereof, so that the water rapidly sinks through the bed into said drains, thus at all times insuring a dry road-bed.

At Figs. 3 and 4 are represented a section of tramway or track made partly of brick. In this construction, after the drain-tile is laid the ditch is filled with sand, gravel, or any porous material up to the top of the cross-ties, and on this is laid two planks, F, a short distance apart and spiked to the ties, and upon these planks a course of bricks, G, set on their edges, are laid, and on the outside and inside of the bricks a triangular strip of plank, H, is spiked to the ties, said strips forming a box for the bricks and the inclined sides of the stringers, while the rails, being laid on and partially covering the bricks, form, in connection with said strips, a means for keeping them in place. The surface-water in this construction soaks through and between the bricks into the sand or gravel, and thence into the drains.

When the stringers are made of wood or other material open spaces may be made in them to let the water through.

In Fig. 1 part of the road-bed is represented as being removed in order to better illustrate the invention.

At ravines and other proper places culverts may be constructed across and under the road-bed, opening into ditches at its sides, into which the drains open.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

- 5 1. The combination, with a tramway or track having its outer sides beveled off, of the rails D, beveled off on both sides, substantially as and for the purpose herein shown and described.
- 10 2. The combination of a tramway or track having outer beveled sides, rails D, beveled on both sides, and cross-ties C, extending beyond the sides of the tramway or track, and upward between the same to the rails, substantially as and for the purpose herein shown and
15 described.
3. In a tramway or track, the combination of two longitudinal planks, F, arranged a short

distance apart, a course of bricks, G, laid upon said planks, triangular side strips, H H, and the rail D, substantially as and for the pur- 20
pose herein shown and described.

4. The combination, with a track for the wheels of vehicles formed of bricks or like porous material, of drains arranged directly under the said wheel-tracks, as and for the 25
purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of October, 1880.

THOMAS S. MILLS.

Witnesses:

THOS. SLADE,
JOSEPH W. BOWLES.