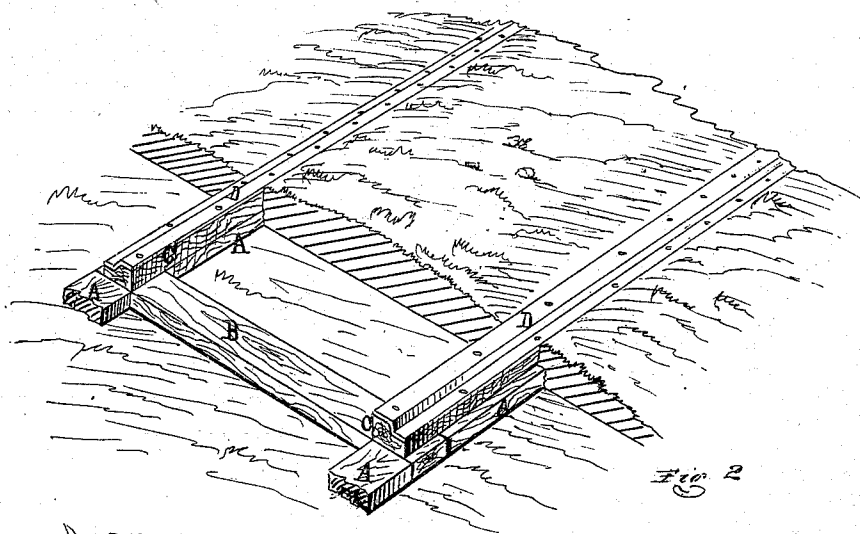
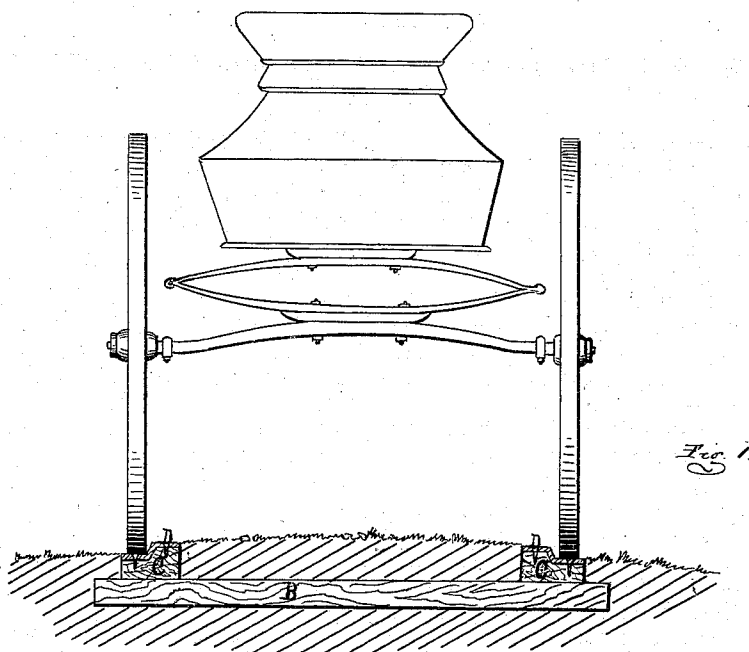


JOHN M. JOHNSTON.

Improvement in Tramways for Turnpikes.

No. 125,304.

Patented April 2, 1872.



ATTEST:

Marion H. Church
Wm. J. Sprague

INVENTOR:

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UNITED STATES PATENT OFFICE

JOHN M. JOHNSTON, OF MT. VERNON, MICHIGAN.

IMPROVEMENT IN TRAM-WAYS FOR TURNPIKES.

Specification forming part of Letters Patent No. 125,304, dated April 2, 1872.

To whom it may concern:

Be it known that I, JOHN M. JOHNSTON, of Mt. Vernon, in the county of Macomb and State of Michigan, have invented a new and useful Improvement in Tram-Way for Turn-pikes and Highways; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a cross-section of my tram-way; and Fig. 2, a perspective view of the same, with a portion of the ballast removed.

Like letters indicate like parts in each figure.

The nature of this invention relates to the construction of a cheap tram-way for turnpikes and highways, and intended for the use of wagons and other vehicles drawn by animal power; and it consists in the employment of a reversible rail of a peculiar section, in connection with a wooden superstructure, as more fully hereinafter set forth.

In the drawing, A A represent longitudinal sills of timber, of uniform length, laid in trenches made in the road-bed. B are cross-sleepers laid across the ends of each pair of sills, which abut against them, and may be halved on the ends of the cross-sleepers or not, as preferred.

C are string-pieces, their upper surfaces molded or shaped to receive the rails D, as shown, laid on and spiked to the sills A, but breaking joints with them—that is to say, that the cross-ties and ends of the sills come under the middle of the string-pieces. The rails D are rolled of the peculiar offset section shown, of light bar-iron, and secured by spikes or countersunk wood screws to the string-pieces. Their section is such that they can be reversed or turned bottom up when one edge or side is worn, and secured to the stringers again, to present a fresh part to the abrasive action of the wheels of the vehicles passing over them. The offset or "jog" in the mid-

dle of the rail forms a flange to guide and keep the wheels of the vehicles on the track.

The advantages of such a tram-way on highways are, first, a light first cost, owing, chiefly, to the light section of iron required, and its durability and facility of turning the rails when worn; second, the capacity of hauling heavy loads is largely increased, as compared with the tractive power of a given team over the best pavement or turnpike.

I am well aware that iron tram-ways are not new, and claim nothing for such, but only the result attained by the employment of the rails of the section shown, in connection with the rest of the superstructure.

The timber used should be, as a matter of economy, creosoted, or otherwise submitted to some approved preservative and antiseptic process.

If the crown of the road-way is beveled off flush with or a little below the outer part of the rails, no difficulty will be found in having the vehicles "track," it being, of course, understood that the gauge of the vehicles is uniform with that of the tram-way; nor will any difficulty be found in turning off the track to pass a vehicle, as the "flange" of the rail is but slight, and its face sloped or inclined.

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

1. The reversible rail D, constructed, arranged, and operated substantially as described and shown, for the purposes set forth.

2. The combination of the reversible rails D and correspondingly-shaped string-pieces C, the longitudinal sills A and cross-ties B, all constructed, arranged, and operated substantially as described and shown, and for the purpose set forth.

JOHN M. JOHNSTON.

Witnesses:

D. C. GRUM,
C. F. MALLARY.