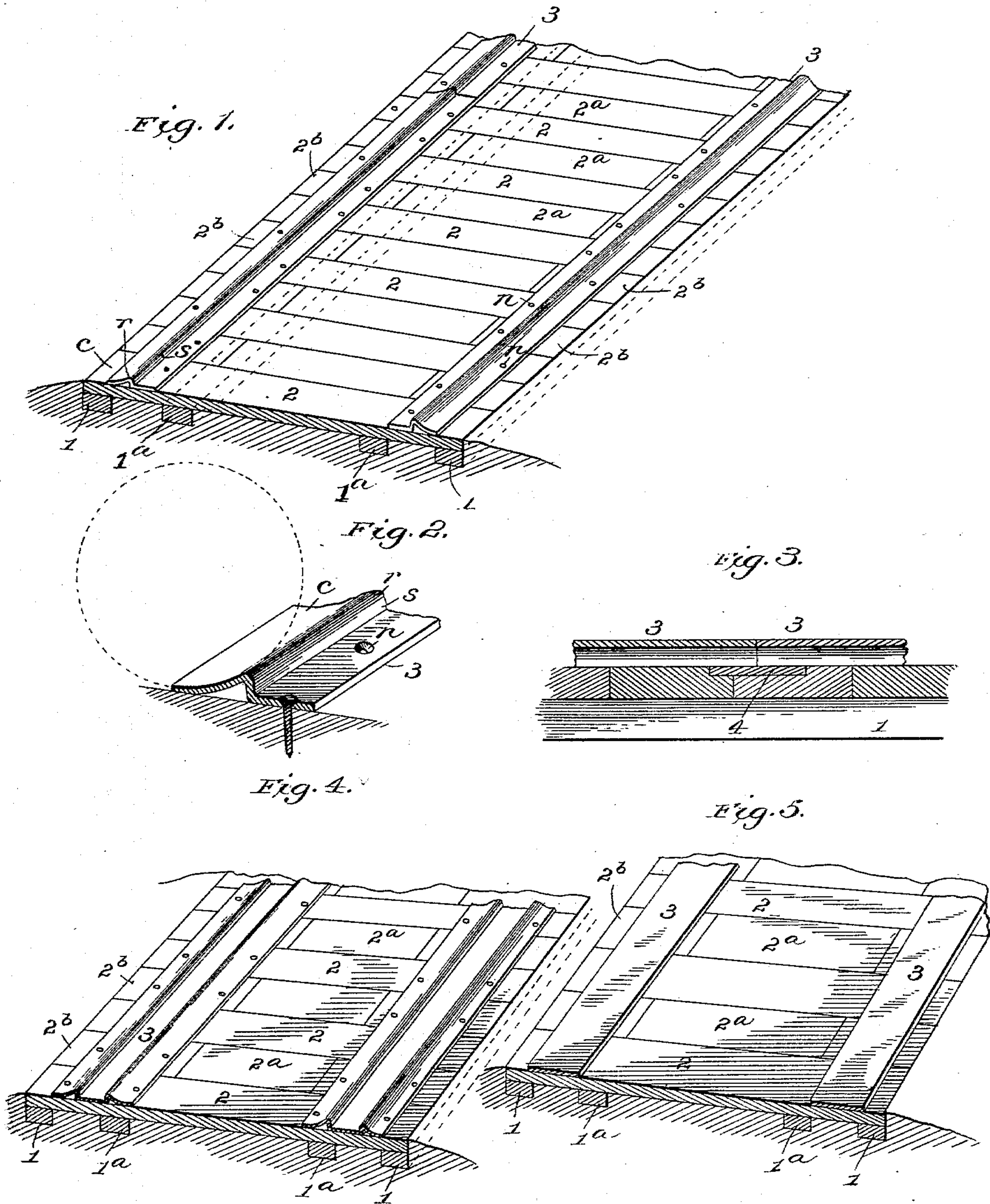


(No Model.)

F. MELBER.  
ROADWAY.

No. 511,023.

Patented Dec. 19, 1893.



witnesses:  
Harry S. Rohrer.  
Mr. E. Wyre.

Inventor:  
Frederick Melber  
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Atty.



# UNITED STATES PATENT OFFICE.

FREDERICK MELBER, OF ROSS, ALLEGHENY COUNTY, PENNSYLVANIA.

## ROADWAY.

SPECIFICATION forming part of Letters Patent No. 511,023, dated December 19, 1893.

Application filed March 27, 1893. Serial No. 467,894. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK MELBER, a citizen of the United States, residing in Ross township, county of Allegheny, and State of Pennsylvania, have invented certain new and useful Improvements in Roadways; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a section of roadway embodying my invention, showing the preferred form of plate rail. Fig. 2 is a detached enlarged perspective view of the said preferred form of plate rail. Fig. 3 is an enlarged longitudinal sectional view of the meeting ends of two rails, the planking beneath the same, and an interposed wear plate. Fig. 4 is a perspective view of a section of the roadway showing one modification of the plate rail. Fig. 5 is a perspective view of a section of the roadway wherein a flat plate rail is employed.

Like symbols refer to like parts wherever they occur.

My invention relates to the construction of turnpike, or county roads, or that class of thoroughfares whereon the ordinary wheeled vehicles are employed, and has for its object the production of a cheaply constructed, easily repaired and durable road, not liable to be injured by heavy and constant traffic, or injuriously affected by climatic conditions.

To this end the main feature of my invention generally stated, embraces the combination with the earth road bed and with a plank roadway, of plate metal track rails, and a series of stringers relatively arranged, on the road bed so that each track rail shall have lateral supports independent of the planking which forms the foot-way between the rails, which supports prevent the lateral or sidewise movement of the rail so that the wear of the foot-way will not disturb the proper relation of the track, and said footway may be repaired without interfering with the track.

There are other minor features of invention, all as will hereinafter more fully appear.

I will now proceed to describe my invention more fully so that others skilled in the art to which it appertains may apply the same.

My improved roadway, regarded as a whole, embraces in its construction a series of foundation pieces or stringers 1, 1<sup>a</sup>, &c., transverse planking 2, 2, &c., arranged thereon to form the footway, and plate rails 3, 3, to form the track-way for the vehicles. The foundation pieces or stringers 1, 1, and 1<sup>a</sup>, 1<sup>a</sup>, of which any desired number may be employed, are arranged in pairs, on the road bed substantially parallel, and so disposed as to form independent lateral supports for each of the track rails 3, 3, the outer stringers 1, 1, being sufficiently far apart to allow the track rails 3, 3, to be laid to the proper gage, or the desired distance apart, and the inner stringers 1<sup>a</sup>, 1<sup>a</sup>, just within the rails 3, 3, so that the stringers 1, and 1<sup>a</sup>, of each side shall form stable rail supports which will embed themselves in the soil, prevent any lateral or sidewise movement of the rails and maintain the original gage notwithstanding traffic may have worn away that portion of the planking which constitutes the footway.

Upon the stringers 1, 1, 1<sup>a</sup>, 1<sup>a</sup>, disposed substantially as before specified, are laid the transverse planks 2, 2, 2<sup>a</sup>, 2<sup>a</sup>, which form the footway, and the immediate support of the rails 3, 3, and though in first laying the road, if desired, all the planks may be of such length as to extend from outside stringer 1, to the outside stringer 1, of the opposite side, yet only a portion thereof may be of such length as indicated at 2, 2, and may be so disposed as to form ties between the rails 3, 3, at suitable intervals. The remainder or intermediate planks 2<sup>a</sup>, 2<sup>a</sup>, may be in short lengths, which will enable the foot path, or that portion of the road bed which is subject to wear, to be readily and cheaply replaced without disturbing the track.

Upon the stringers and superimposed planking 2, 2<sup>a</sup>, are arranged the plate rails 3, 3, by preference so disposed as to rest above the intervals between the respective stringers 1, 1<sup>a</sup> of the corresponding side, and at the junction of the ends of the rails they may rest upon and be supported by bed plates 4, interposed between the rail flange and the planking 2, and if desired let into said planking. The rails 3, 3, thus laid form top binders for the planking 2 and for the short sections 2<sup>b</sup>, which insures the stability of the rail supports.



These plate rails 3, 3, may if desired, be flat, or corrugated transversely, but I prefer them to be of the general cross section shown in Figs. 1 and 2; that is to say, with longitudinal rib *r* having a rather abrupt inclination on the inside as at *s*, to retain the wheel of the vehicle, cause it to track when on the rail, and with a gradual concave or arc-shaped curve on the outside as at *c*, to facilitate the climbing of the wheel when mounting the rail, thus avoiding the slipping and dragging of the wheel incident to the use of the ordinary flat rails or those having vertical or convex sides to the rails.

*n* indicates the spike holes for securing the rails 3, 3, to the planking and those upon the inner side of the rail I prefer to countersink so as to receive the head of the spike and thus avoid any obstruction in the path of the vehicle wheel.

Among the advantages of my invention, are the protection of the planking by the rails which prevents the usual destruction of the planking at said points, the reduction of the traction power required which prevents the rapid destruction of the footway, the economy of repair by the use of short lengths of planking in the footway, and the maintenance of the level and gage of the track when the foot way is worn, it being possible, if deemed desirable, to repair the footway by filling in with dirt or gravel.

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

1. In a roadway for vehicles, the combination with the earth bed, and track rails, of a plurality of stringers for each track rail, said stringers arranged on the earth bed parallel with each other and with the superposed track rail, and planking interposed between the stringers and rail, whereby each track rail is provided with an independent support to maintain the gage of the track, substantially as and for the purposes specified.

2. In a roadway for vehicles, the combination with two sets of stringers and parallel track rails, of interposed transverse planking to form a footway, a suitable number of said planks adapted to extend the width of the track; substantially as and for the purposes specified.

3. In a roadway for vehicles, the combination of two sets of stringers 1, 1<sup>a</sup>, transverse planking 2, 2, and plate rails arranged on the planking and over the intervals between the respective stringers; substantially as and for the purposes specified.

4. In a roadway for vehicles, the combination of two sets of stringers 1, 1<sup>a</sup>, transverse tie planks 2, 2, and short sections of planking 2<sup>a</sup>, 2<sup>a</sup>; substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 25th day of March, 1893.

FREDERICK MELBER.

Witnesses:

THOS. MCCAFFREY,  
FRANK MCMAHON.