

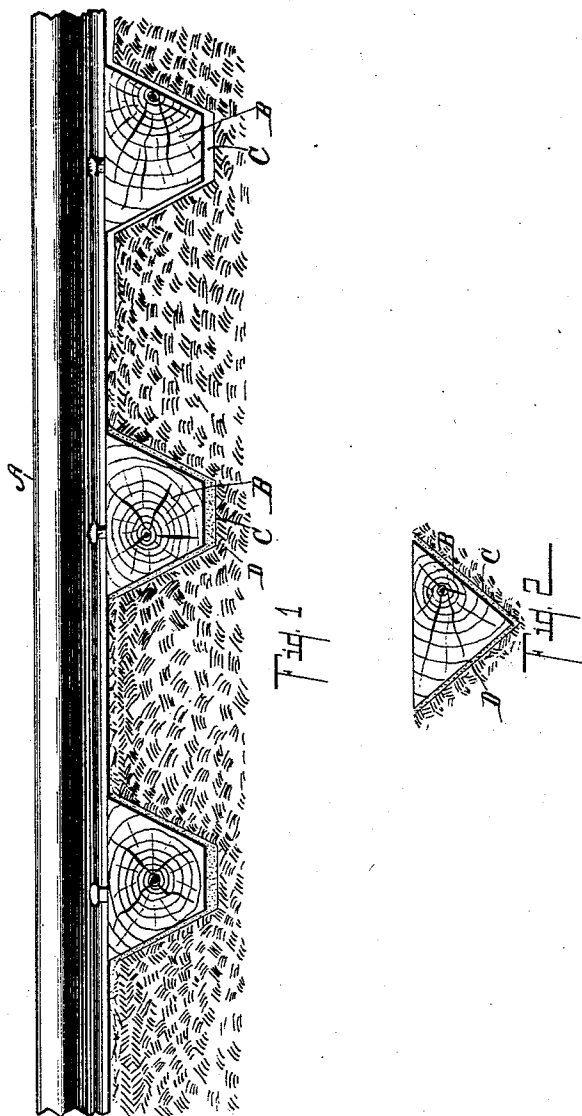
(No Model.)

M. SHEAHEN.

RAILROAD AND METHOD OF LEVELING SAME.

No. 568,879.

Patented Oct. 6, 1896.



Witnesses:

Walter S. Wood
Jesse E. Chappell

Inventor

Maurice Sheahen
By Fred L. Chappell
Att'y.

UNITED STATES PATENT OFFICE.

MAURICE SHEAHEN, OF DECATUR, MICHIGAN.

RAILROAD AND METHOD OF LEVELING SAME.

SPECIFICATION forming part of Letters Patent No. 568,879, dated October 6, 1896.

Application filed December 24, 1895. Serial No. 573,192. (No model.)

To all whom it may concern:

Be it known that I, MAURICE SHEAHEN, a citizen of the United States, residing at the village of Decatur, in the county of Van Buren and State of Michigan, have invented certain new and useful Improvements in Railroads and Methods of Leveling the Same, of which the following is a specification.

My invention relates to improvements in railways and in the method of leveling or "surfacing" the same. The ordinary method of construction is to place the rails upon square ties which are embedded in the road-bed. The principal work of the section-gangs employed by the railroad companies, for a large part of the year, is the "leveling" or "surfacing," so called, of the track. The method heretofore employed was to remove a part of the material of the road-bed from between the ties after raising the track, with the ties, to the desired position and with a tamping-bar drive sufficient material beneath them to sustain it in this position. This, of necessity, must be imperfectly done, owing to the fact that it is substantially impossible to pack the material of the road-bed beneath the tie in the horizontal position. The road-bed is also made of gravel, cinder, or broken stone or similar material to secure a perfectly solid formation and it requires great labor to properly break the same between the ties, and the road-bed would be much better if undisturbed in leveling.

The objects of my invention are to provide a construction of railroad in which it is possible to do this leveling or surfacing in an economical manner, and also to provide improved means of surfacing or leveling the track, which shall dispense with the necessity of disturbing the road-bed and with the use of the tamping-bar and leave the road and its bed in a more perfect condition. I accomplish these objects of my invention by the means described in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of railway-track with a part of the road-bed removed, so that the ends of the ties are ex-

posed. Fig. 2 is an end view of a slight modification of a tie.

In the drawings similar letters of reference refer to similar parts throughout both views.

Referring to the lettered parts of the drawings, A represents one of the rails of the track.

B B are the ties which rest upon the road-bed below. The ties are formed broad on top and narrow at the bottom with sloping sides and are secured to the rails of the railroad-track by the usual spikes.

In leveling or surfacing the track the sag is noted, the usual block and lever is applied, and the rail and connected ties are raised slightly above the level position, which is the usual process. This will form an open space C to each side of and beneath the tie. I then take a quantity of thoroughly-dried sand and pour it along and it flows under the tie and into the seams (see D) at the sides almost as freely as water. When the tie is released, it will settle upon the same as firmly as though the tie were supported directly upon the solid road-bed itself. The work can be done in this way in a small fraction of the time required to do it in any other way. To make the same practical, it will of course be necessary to keep a suitable store of dry sand for use in this way. Where the track is in very bad condition, finely-screened gravel can be employed in place of the sand. This will not be found desirable, however, unless it is desirable to elevate the track more than an inch. The greater the slope given to the side of the tie the larger will be the opening to the side of it between it and the road-bed, which will, of course, facilitate the use of coarser sand under the tie.

My improved railroad can be considerably varied in its construction without departing from my invention. The under side of the tie can be made V-shaped, as indicated in Fig. 2, and the material of which the tie is constructed does not matter, as the same principle will apply to a tie of this form constructed of wood, metal, or any other material.

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

The method of leveling or surfacing a rail-
road consisting in supporting the rails on
ties which are broader at the top than at the
bottom with sloping sides elevating the tie
5 and pouring dry sand between the ties and
the road-bed when the ties are elevated as
specified.

In witness whereof I have hereunto set my
hand and seal in the presence of two witnesses.

MAURICE SHEAHEN. [L. S.]

Witnesses:

A. L. MOULTON,
DENNIS JORDAN.