

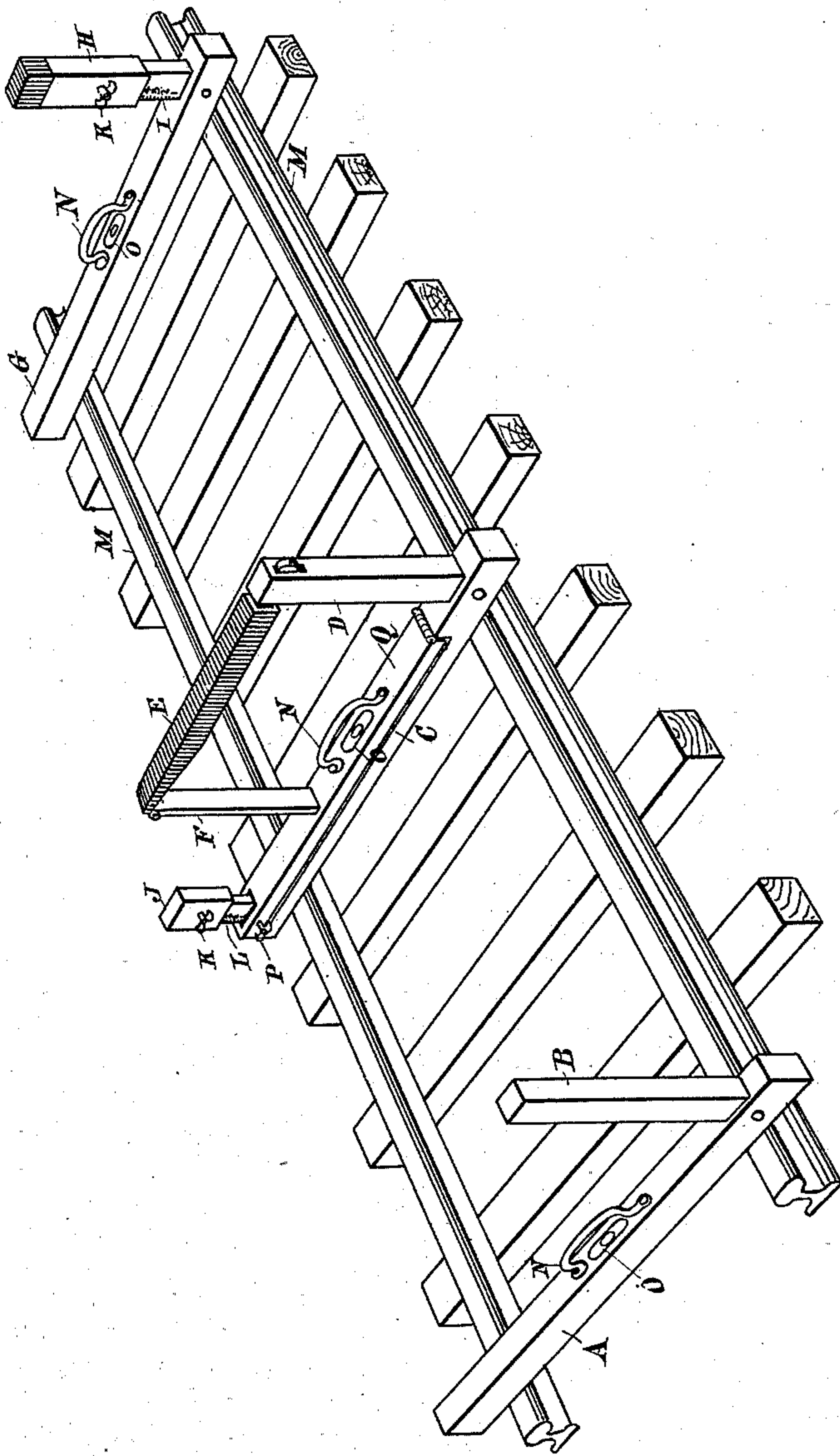
No. 750,353.

PATENTED JAN. 26, 1904.

J. FINN.
TRACK LEVELER.

APPLICATION FILED JULY 6, 1903.

NO MODEL.



WITNESSES:
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JOHN FINN, OF MONTGOMERY, MISSISSIPPI, ASSIGNOR OF ONE-HALF TO
EDWARD A. GUILFOYLE, OF LOUISVILLE, KENTUCKY.

TRACK-LEVELER.

SPECIFICATION forming part of Letters Patent No. 750,353, dated January 26, 1904.

Application filed July 6, 1903. Serial No. 164,374. (No model.)

To all whom it may concern:

Be it known that I, JOHN FINN, a citizen of the United States, residing at Montgomery, in the county of Lincoln and State of Mississippi, have invented a new and useful Track-Leveler, of which the following is a specification.

My invention relates to an improvement in the apparatus for leveling the tracks of railroads, so as to straighten the rise or dip of each rail for great distances when there is a rise or dip or to keep the rail level throughout a great distance when there is no rise or dip between the extremities both when the track is straight or when it runs in a curve and the outside rail is raised above the inside rail.

The object of my invention is to enable the ordinary track-layers to obtain these straight lines without the aid of a civil engineer or surveyor or of mathematical instruments. I attain these objects by the mechanism illustrated in the accompanying drawing, in which the only figure is a perspective view of the apparatus, which is made up of three separate parts as it stands when in use on a railroad-track laid but not yet ballasted and spiked down. The distances between the separate parts of my apparatus will in practice be much greater proportionately than they appear in the drawing.

The apparatus is made up of the three wooden frames A B, C D, G H, of which A B is put at the point where the leveling-work begins, G H at the farthest point—say one thousand feet from A B—to which sighting can be conveniently carried, and the intermediate frame C D is carried forward at short distances from A B toward G H as the work progresses. Each frame has a horizontal beam A C G and an upright part B D H. In the middle of the former is a spirit-level O and a handle for carrying N. The horizontal beams are of a length to lie across the rails and extend a small distance on each side. The uprights of the first and second frame and of the third (when not raised or lowered along its gage) are of the same height. The horizontal beam of the second frame is divided

on the left-hand side into two parts, which are hinged near the right-hand end. The upper part (marked Q) can be raised, and the height to which it is raised will be seen on the gage L, through which it passes. When raised it can be kept in position by the setting-screw P. The gage is also inclosed in the short piece J, to which it is held by the setting-screw K. From the upright D a brightly-colored horizontal beam E, supported at its left-hand end by the stick F on the beam C, extends on an exact level with the top of D, but is fitted into it loosely, so as to follow the hinged piece Q and to remain parallel thereto. The third frame bears a gage I, on which the upright H moves and to which it can be held by the setting-screw K. The top of H is painted in some bright color.

In use the frame A B, C D, and G H having been set up and the height to which G H is to be leveled up having been determined, the upright piece H is shoved up or down on the gage I accordingly. The track-leveler then puts the middle frame C D at a proper distance, sights from B to H, and an assistant raises the middle frame till the top of D is in the exact line of sight between B and H. When the right-hand track shown on the drawing is the outside track in a curve, it will be necessary to sight over some part of the colored beam E, and in order to keep this at a level the upper fold Q of the beam will have to be raised to a horizontal, as shown by the spirit-level O at its middle, while the gage L will measure the elevation of the outward over the inward track. The top of the middle frame having been brought into the line of sight, the track under it will be raised or lowered by means known to all track-levelers. The middle frame is then carried forward, the frame A B may be put into its place, and the work thus proceeds till the middle frame has been put within a short distance of the third. The right-hand track having been thus brought to the proper grade, the left-hand track is graded to the same height where the road is straight or to the desired grade below it where the road is curved. Of course

when the outward track is on the left the frames will be inverted from the position shown in the figure.

What I claim as new, and desire to secure
5 by Letters Patent, is—

1. A combination as an implement of track-leveling of three frames, each consisting in the main of a horizontal beam and an upright piece, which in the first and second are of the
10 same height, and in the third can be shifted up or down a gage, to a greater or less height than the two others, with a set-screw to hold it in position; and in the second with a bright-colored piece supported by a stick on a beam
15 bearing a spirit-level and hinged to the horizontal beam under it; substantially as shown and described in the drawing and specification.

2. A combination as an implement for track-leveling of three frames, each consisting in the main of a horizontal beam and upright
20 piece, the middle of these frames bearing on the side opposite to the upright piece a gage along which a beam bearing a spirit-level and hinged on the upper surface of the horizontal
25 beam can be shoved up or down; substantially as shown and described in the drawing and specification.

In witness whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN FINN.

Witnesses:

V. B. WATTS, Jr.,
A. C. GRAHAM.