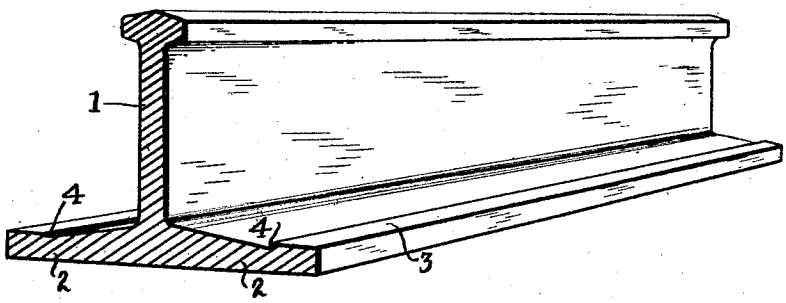
Aug. 18, 1925. 1,550,142

E. T. BENNINGTON

TRACK RAIL FOR OVERHEAD CARRIER SYSTEMS

Filed Nov. 28. 1924



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UNITED STATES PATENT OFFICE.

EARL T. BENNINGTON, OF CLEVELAND HEIGHTS, OHIO, ASSIGNOR TO THE CLEVELAND CRANE & ENGINEERING COMPANY, OF WICKLIFFE, OHIO, A CORPORATION OF OHIO.

TRACK RAIL FOR OVERHEAD CARRIER SYSTEMS.

Application filed November 28, 1924. Serial No. 752,684.

To all whom it may concern:

Be it known that I, EARL T. BENNINGTON, a citizen of the United States, residing at Cleveland Heights, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Track Rails for Overhead Carrier Systems, of which the following is a full, clear, and exact description.

This invention relates to track rails for overhead carrier systems of the type in which the carrier wheels travel upon the flanges of the supporting rails, and has for its object to provide a rail so formed that it will stand the peening action of the carrier wheels.

In all overhead carrier systems of the type above referred to the life of the rails have been limited due to the fact that the flanges gradually become bent out of shape. This bending is caused by the peening action of the carrier wheels which causes a gradual displacement of the metal of the flanges adjacent the upper surfaces thereof, such flowing or displacement of the metal setting up stresses in the metal of the flanges which cause them to be gradually bent downwardly until they become so distorted that they have to be replaced.

The present invention provides a rail with its carrier supporting flange or flanges so formed that the bending stresses due to the peening action of the carrier wheels are practically eliminated, the portion of the flange over which the wheels roll being so formed as to permit a lateral flow or displacement of metal under the peening action of the carrier wheels without setting up bending stresses in the body of the flange.

The following description and accompanying drawings set forth in detail certain means embodying the invention, the disclosed means, however, constituting but one of the various mechanical forms in which the principle of the invention may be employed.

Reference should be had to the accompanying drawings forming a part of this specification in which a sectional perspective view of a rail embodying the invention is shown. The rail shown in the accompanying drawings is substantially T-shaped in section, having a vertically disposed web 1 and flanges 2 extending upon opposite sides of the web 1 and forming the track upon which the wheels of the carriers run.

The rail shown herein is a rolled rail, the flanges 2 tapering from the web toward the outer edges as in the standard T-rail section. The present rail, however, differs from the standard T-rail section in that it is provided along the outer edges of the flanges with raised beads 3 which are relatively narrow and have flat top surfaces at right angles to the web upon which the carrier wheels roll. The beads 3 have inner shoulders 4 rising from the body of the flanges and these shoulders permit a lateral flow or displacement of the metal of the beads without creating such stresses in the body of the flange as will cause the flange to bend downwardly. In service the peening action of the carrier wheels is exerted upon the raised beads 3 and the metal displaced by such peening action is caused to flow laterally, forming a flash along the shoulder 4, this displacement of the metal of the bead causing no disturbance of the metal in the body of the flange so that with a rail of a given weight the life of the rail is greatly prolonged.

Having described my invention, I claim—

1. A one piece rolled rail for overhead carrier systems having a web and a carrier supporting flange having its bottom face at right angles to the web and formed with a bead on its upper side which extends along its outer edge, said bead having a flat wearing tread surface the inner edge of which is above the contiguous inner portion of the flange whereby lateral flow of metal inwardly from the tread surface above the body of the flange is permitted so that metal may be displaced by the peening action of carrier wheels without setting up bending stresses in the flange.

2. A one piece rolled rail for overhead carrier systems having a web and a carrier supporting flange formed with a bead on its upper side which extends along its outer edge, said bead having a flat wearing tread surface the inner edge of which is above the contiguous inner portion of the flange whereby lateral flow of metal inwardly from the tread surface above the body of the flange is permitted so that metal may be displaced by the peening action of carrier wheels without setting up bending stresses

in the flange, said flange being of gradually increasing thickness inwardly from the bead to the web.

3. A one piece rolled rail for overhead monorail systems having a web and flanges extending laterally upon opposite sides thereof, said flanges having beads on the upper sides thereof and extending along their outer edges, said beads having flat wearing tread surfaces upon which the carrier wheels roll, the inner edges of the beads being raised above the contiguous portions of the flanges whereby lateral flow of metal inwardly from the tread is permitted above the body of the flange.

In testimony whereof, I hereunto affix my signature.

EARL T. BENNINGTON.