

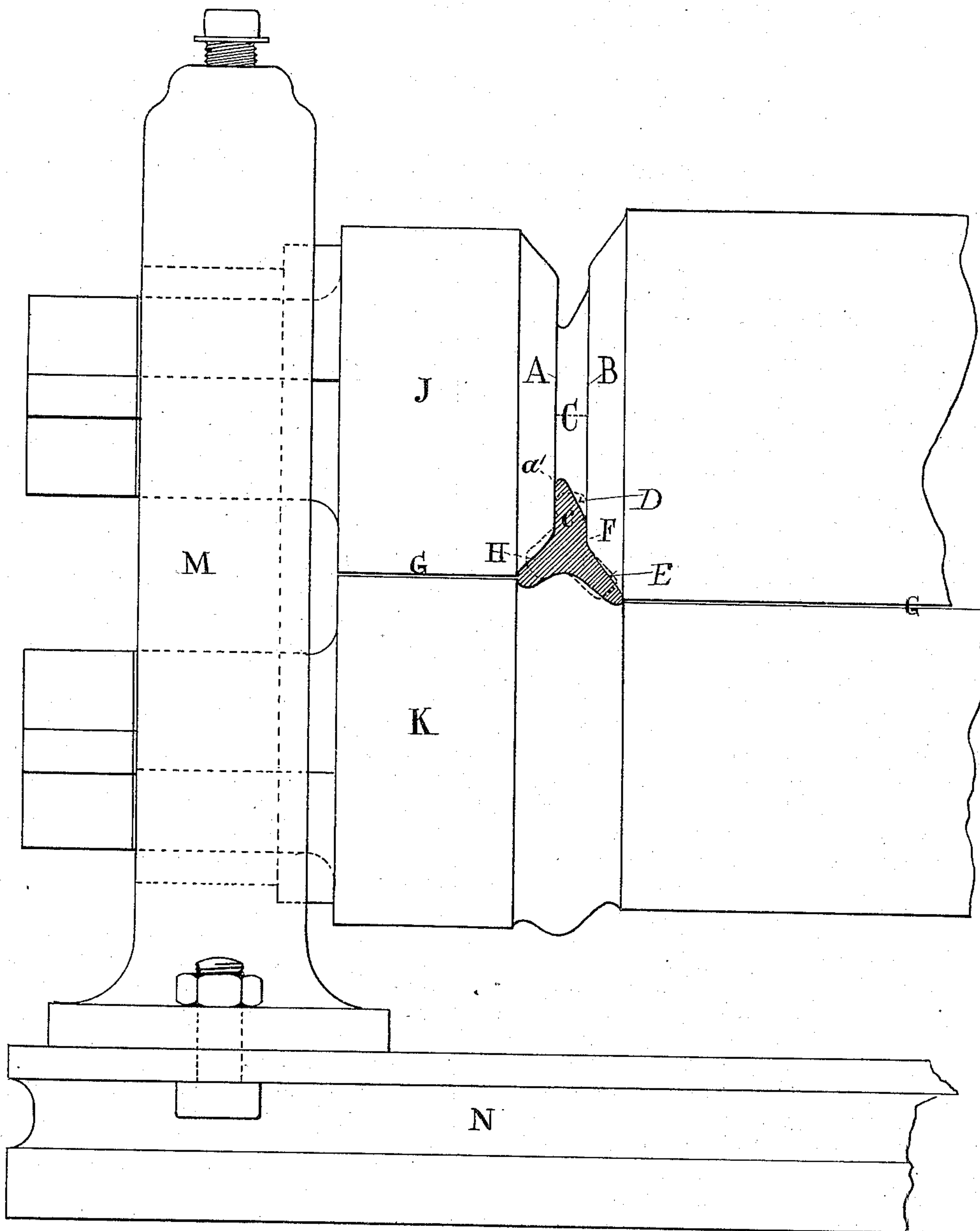
(No Model.)

A. J. MOXHAM.

ROLL FOR ROLLING CAR RAILS.

No. 330,998.

Patented Nov. 24, 1885.



WITNESSES:

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ARTHUR J. MOXHAM, OF JOHNSTOWN, PENNSYLVANIA.

ROLL FOR ROLLING CAR-RAILS.

SPECIFICATION forming part of Letters Patent No. 330,998, dated November 24, 1885.

Application filed October 5, 1885. Serial No. 178,976. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR J. MOXHAM, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Rolls for Rolling Car-Rails, which invention or improvement is fully set forth and illustrated in the following specification and accompanying drawing.

The object of this invention is to roll a hot-metal bloom into a trilobe shape or form, with one lobe offset to one side, which trilobe shape shall be suitable for subsequent rolling into any of the ordinary forms of side-bearing girder street-rails.

The invention consists in the shape of the pass formed by the two grooves, one groove each in the upper and lower roll, hereinafter described.

The accompanying drawing illustrates part of a set of rolls containing the grooves of the pass constituting the invention, the letters thereon marked being referred to in the following description, setting forth the novel construction and operation of said pass.

The dotted lines show the shape of the entering-billet, and the letter *c* the shape that a templet of the pass or the cross-section of the finished trilobe would assume.

In the rolling heretofore of trilobe forms of metal it has been the general custom to submit two of said lobes to "dummy" action in the rolls, the third lobe being maintained at a right angle to the axis of the rolls, and by alternating the dummy action in the successive passes the desired amount of spread and the proper form are secured. In this invention, by taking the ordinary trilobe form and subjecting it to cross-draft at the point D in the drawing, a dummy action is also secured at this point. The horizontal parting-lines G G are best located parallel to the respective axes of the rolls J K, though the exact location of these parting-lines may be varied. The lines A and B show lines of direction at right angles to said lines G G.

The letters M N indicate parts of the housing or frame-work supporting the rolls.

It is manifest that all draft, in order to secure spreading of the mass, must be put upon said mass in the plane G G, provision being made for such spreading by the necessary opening of the pass; hence, with a pass of the form herein shown, the part D of the mass acted on, as shown by the dotted lines, is subject to dummy action simultaneously with the parts E and H. This dummy action is measured in its effect on the portion D by the extent of dotted line C, which line is in the same plane as the lines G G, and at right angles to the lines A and B. This dummy action forces the part D of the mass up into the space *a'*. It thus at the same time secures the necessary spread and changes the trilobe section into a form with an offset at F, suitable for subsequent rolling into any of the ordinary forms of side-bearing girder street-rails. It will be noticed that the peculiar angle of entry of the piece and the shape at the groove secure this offset, while advantageously working the piece to shape otherwise. The securing of this offset, by which the rise of the head above the side tram is effected, is done by the use of several passes in the ordinary method. By the use of one or more of these passes in an ordinary set of rolls having other passes suitable to coact with them the necessary spread of metal can be so quickly secured that the total number of passes needed for this purpose may be greatly reduced.

Having thus fully described the form and action of the grooves of the pass constituting my invention, I claim—

A set of rolls for rolling metal, provided with a three-part dummy pass consisting of grooves shaped substantially as hereinbefore described, and illustrated in the accompanying drawing, whereby blooms are rolled into bars of the trilobe section indicated in said drawing, substantially as and for the purposes set forth.

ARTHUR J. MOXHAM.

Witnesses:

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