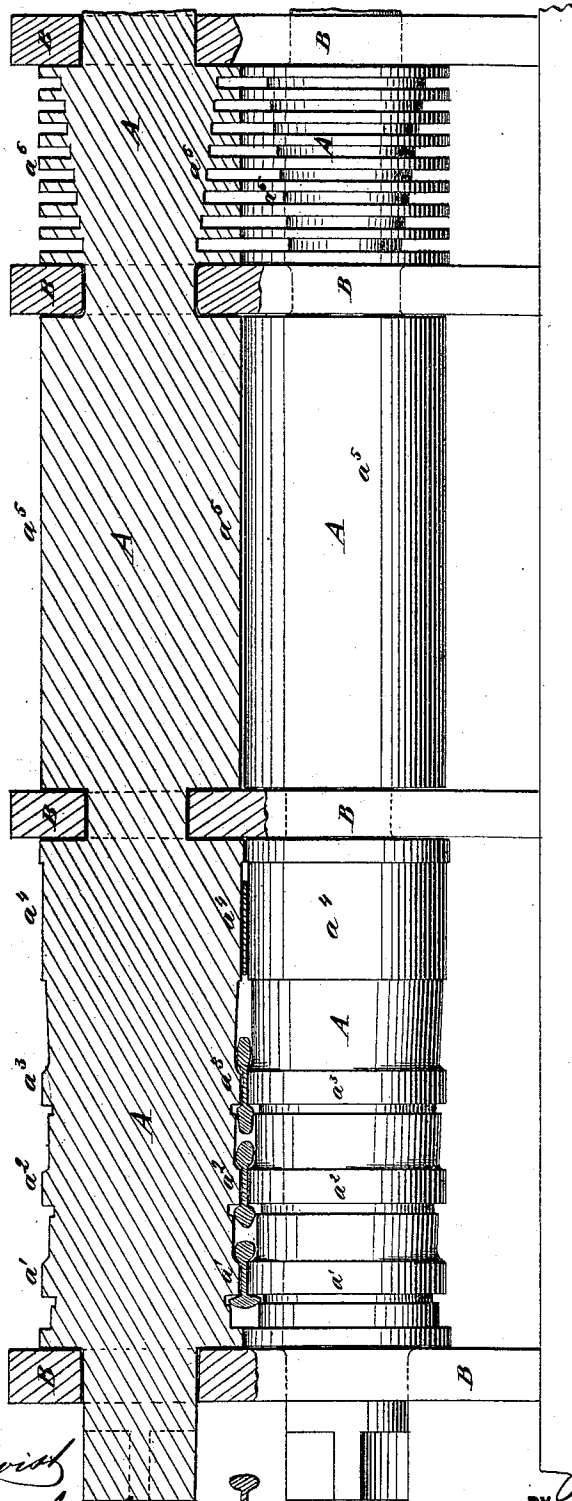


J. N. WHITMAN.

MACHINES FOR REDUCING RAILROAD RAILS TO THE FORM OF
PLATES.

No. 179,379.

Patented June 27, 1876.



WITNESSES:

H. W. Almqvist
John Goethals



INVENTOR

J. N. Whitman
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ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES N. WHITMAN, OF PEMBROKE, MAINE.

IMPROVEMENT IN MACHINES FOR REDUCING RAILROAD-RAILS TO THE FORM OF PLATES.

Specification forming part of Letters Patent No. **179,379**, dated June 27, 1876; application filed May 16, 1876.

To all whom it may concern :

Be it known that I, JAMES N. WHITMAN, of Pembroke, Washington county, State of Maine, have invented a new Improvement in Forming Plates from Railroad-Rails, of which the following is a specification:

In the accompanying drawing, the figure is a front view of my improved rolls, the upper roll being shown in section.

The object of my invention is to change T and double-headed rails into flat plates by spreading out or flattening them transversely, without crimping or doubling over their external surface, producing plates homogeneous in texture, and suitable for shovel-plates, nail-plates, &c.

The invention will first be described in connection with drawing, and then pointed out in the claims.

In the drawing, A represents two rolls, mounted in a frame-work, B, and driven in the usual way. Upon the rolls A are formed a series of three or more collars, $a^1 a^2 a^3$, to receive the neck or web of the rails, and having open spaces or passes upon each side to receive and flatten transversely the head and flange, or the two heads of the rails, each succeeding pass or space being made shallower and wider, so that the head and flange may be spread out laterally, as shown in the figure. After the rails have been sufficiently flattened, they are passed through a plain

space or pass, a^4 , to be reduced to a uniform thickness. The bars thus formed are passed transversely between two plain portions, a^5 , of the rolls A. The plates thus formed are passed longitudinally and edgewise through a portion, a^6 , of the rolls A, in which are formed a series of ring-grooves of different depths to reduce the plate to a uniform width.

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

1. The method of rolling a railroad-rail to the form of a plate of homogeneous texture by first passing the web portion of rail between collars $a^1 a^2 a^3$, and reducing the head and flange by adjacent portions of the rolls, which spread the metal into the open spaces on each side, then reducing to uniform thickness by passing them between plain portions a^4 of the rolls, then passing them transversely between two plain portions, a^5 , and finally edgewise through the ring-grooved portions a^6 , all substantially as set forth.

2. The combination of two rolls, A A, having the collars $a^1 a^2 a^3 a^4$, and the reducing-surfaces forming open spaces on each side of said collars, substantially as and for the purpose specified.

JAMES N. WHITMAN.

Witnesses:

DENNIS COLLINS,
JOHN SHEEDY.