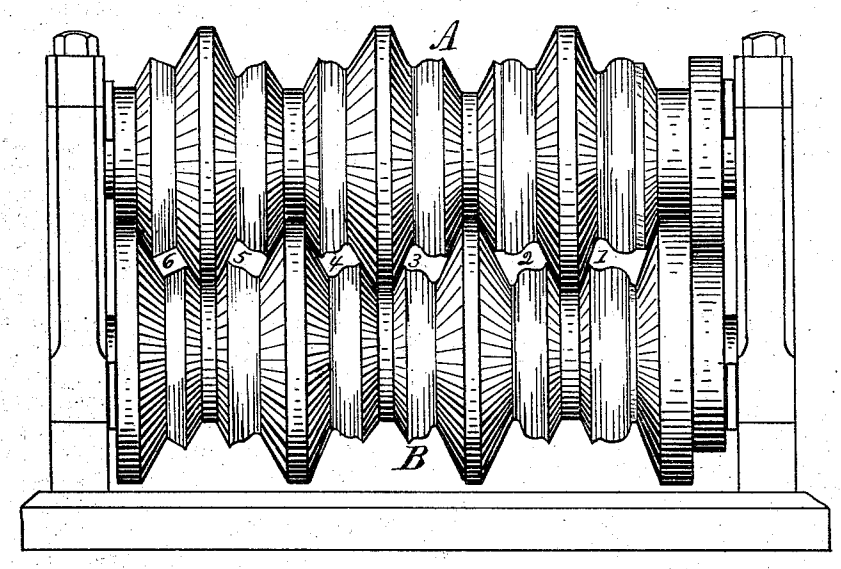
J. P. EDWARDS & A. J. ROGERS.

Rolls for Reducing Old Rails.

No. 154,789. Patented Sept. 8, 1874.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN P. EDWARDS, OF CLEVELAND, OHIO, AND AMBLER J. ROGERS, OF JACKSON, MICHIGAN.

IMPROVEMENT IN ROLLS FOR REDUCING OLD RAILS.

Specification forming part of Letters Patent No. **154,789**, dated September 8, 1874; application filed July 3, 1874.

To all whom it may concern:

Be it known that we, JOHN P. EDWARDS, of Cleveland, Cuyahoga county and State of Ohio, and AMBLER J. ROGERS, of Jackson, Jackson county, State of Michigan, have invented an Improvement in Rolls for Reducing Steel Rails, of which the following is a specification:

This invention relates to certain improvements in rolls for reducing old steel rails or fagots into bars; and consists of a pair of rolls having peculiar grooves, whereby the rail is drawn through between them in a diagonal line from their axis, in such a manner that the rail is thickened up or upset between the edges of the flanges, and also between the flanges through the body of the rail, without lapping the metal. This process is necessary in the operation of reducing Bessemer steel, because of its non-welding quality.

To fully understand this invention we proceed to describe the same with the aid of the accompanying drawing, in which the figure is a side elevation of a pair of rolls having the aforesaid grooves.

A B represent two rolls mounted in suitable housings for working in concert. The grooves, it will be observed, in these rolls, instead of being at right angles with the circumference, are V-shaped, and the rolling surfaces also are at an angle of twenty degrees from the circumference line.

By making the grooves in this manner the entrance thereto is funnel-shaped, so that the grooves are a little smaller than the rail which enters them, and is therefore griped and drawn in, and, instead of being flattened in one direction, is contracted in all points centrally, and fulling it up through the body of the rail. Let it be noticed that the first groove 1 is narrower across the flanges, and is shorter through from the face or tread to the bottom of the rail, leaving the space across for the body of the rail more open, which operates to reduce the metal and thicken it up in form. The second groove 2 is still smaller than 1, and a little more open across the body, and groove 3 is less than 2, and so on successively down to groove 6, which may be square or oblong, the result being the reducing and drawing out into square or flat bars old steel rails.

Having described our invention, we claim—

The rolls A B, having the grooves 1 2 3 4 5 6, as shown and described, substantially as and for the purpose set forth.

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Witnesses:

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