

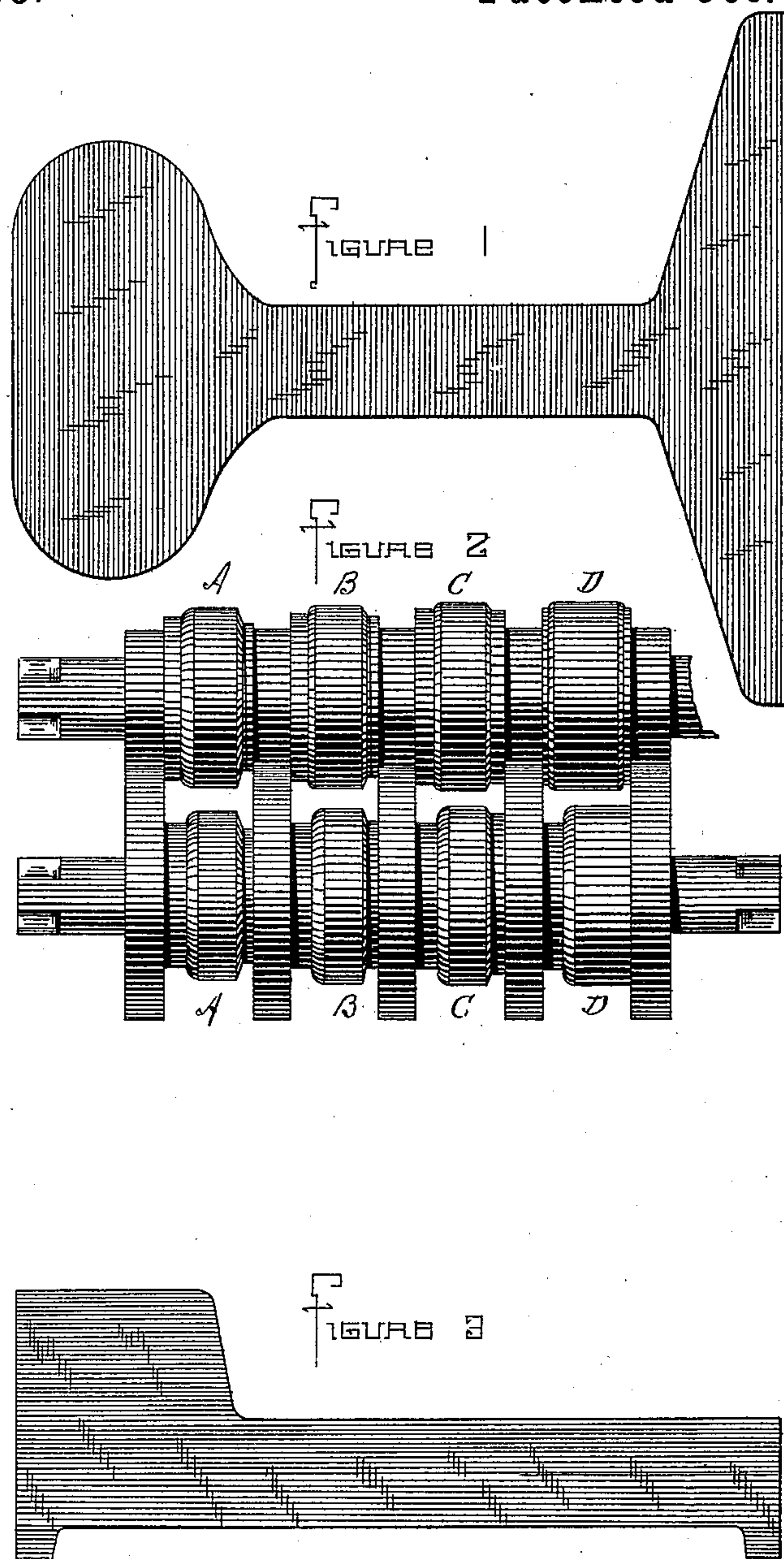
(No Model.)

J. REESE.

ROLLING OLD RAILS TO STREET RAILS.

No. 350,558.

Patented Oct. 12, 1886.



Witnesses—

Harold Reese,
Frank M. Reese,

Inventor—

Jacob Reese

UNITED STATES PATENT OFFICE.

JACOB REESE, OF PITTSBURG, PENNSYLVANIA.

ROLLING OLD RAILS TO STREET-RAILS.

SPECIFICATION forming part of Letters Patent No. 350,558, dated October 12, 1886.

Application filed February 18, 1884. Serial No. 121,203. (No model.)

To all whom it may concern:

Be it known that I, JACOB REESE, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in the Utilization of Old Railroad-Rails in the Manufacture of Street-Rails; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 indicates a cross-sectional view of a sixty-pound rail. Fig. 2 indicates a front elevation of a pair of rolls adapted to reduce the T-rail into a street-rail. Fig. 3 indicates a cross-sectional view of the street-rail.

Like letters of reference indicate like parts wherever they occur.

Heretofore street-rails have been made from piles, blooms, and billets, which cost at present from thirty-five (35) to fifty (50) dollars per ton, whereas old rails may now be had at about twenty-two or twenty-three dollars.

My improvement therefore consists in utilizing old T-rails in the manufacture of street-rails by subjecting the metal to a series of passes, which gradually displace and reduce the metal in the head and flange, forcing the former to one side of the web and the latter into the web, and then reducing the blank so formed into the desired form and size of street-rail; secondly, in mechanism adapted to the use of said improvement.

In the practice of my improvement old iron or steel railroad-rails suitably heated are passed through the groove A, which is so formed that one side of the head is forced downward, and at the same time the flange is reduced on both sides, and the surplus of the metal so displaced flows into and thickens the web. In this operation the length of the rail is not materially changed. The bar is then passed through the groove B, which forces the head still farther down and reduces the flange on both sides. The web is also reduced and the bar elongates proportionally. In the next pass through the groove C the head is more perfectly formed and the flanges and web are

reduced. The bar is then turned over and entered into the groove D, which reduces it into the finished condition.

Railroad-rails are generally four and one-half inches in height, so that when a street-rail of a greater width than four and one-half inches is desired I widen the grooves to permit the metal to flow laterally into the web, and thus secure a broader street-rail, six inches in width and weighing about forty pounds to the yard, from a sixty-pound T-rail four and one-half inches high.

I do not wish to limit my invention to rolling either iron or steel rails of the special pattern shown in Fig. 1 into the special shape of street-rail shown in Fig. 3, as the shape and size of both kinds vary somewhat; but the distinguishing characteristic of my improvement is, that I force the metal from one to the opposite side of the head of the rail, and also force the metal of the flange down into the web, thus producing a street-rail blank which may be reduced by a subsequent pass or passes into the finished form, shape, or size desired.

The principal advantages are, first, a saving of from twelve to twenty-eight dollars per ton is had in the purchase of the raw stock, as compared with the present cost of blooms, billets, and piles; second, I produce a larger output, as comparatively little redistribution of metal is required, and as a consequence reduce all incidental expenses—such as fuel, power, labor, repairs, interest, &c.—to the ton manufactured; third, the roughing-mill and its attendant labor, &c., may be dispensed with.

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

A pair of rolls having passes, the first of which approximates to a double-T shape, and the last to the cross-section of a street-car rail, and the intervening passes to shapes substantially as described.

JACOB REESE.

Witnesses:

FRANK M. REESE,
WALTER REESE.