

No. 54,329.

PATENTED MAY 1, 1866.

J. GOWER.

ROLLS FOR MANUFACTURING THREE HEADED RAILROAD RAILS.

2 SHEETS—SHEET 1.

Fig. 1.

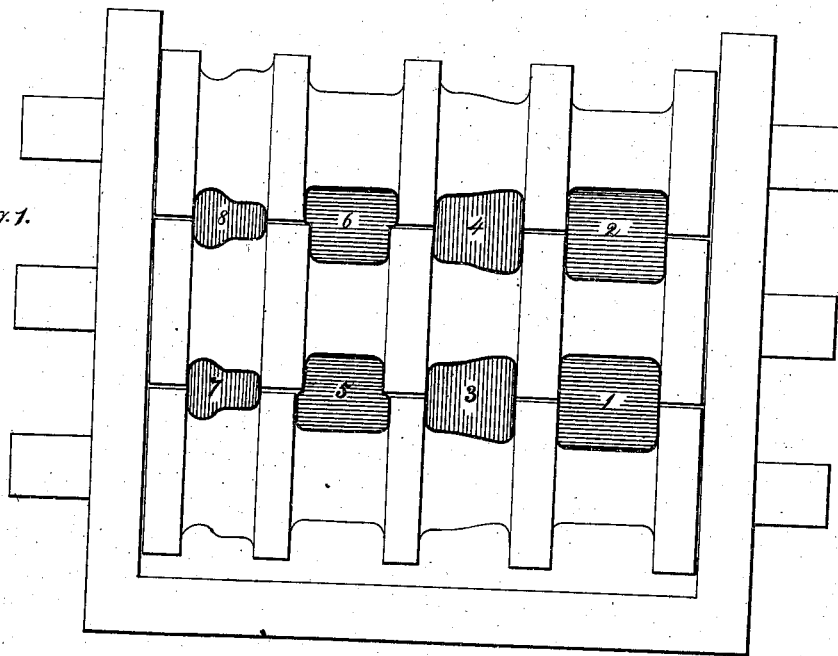
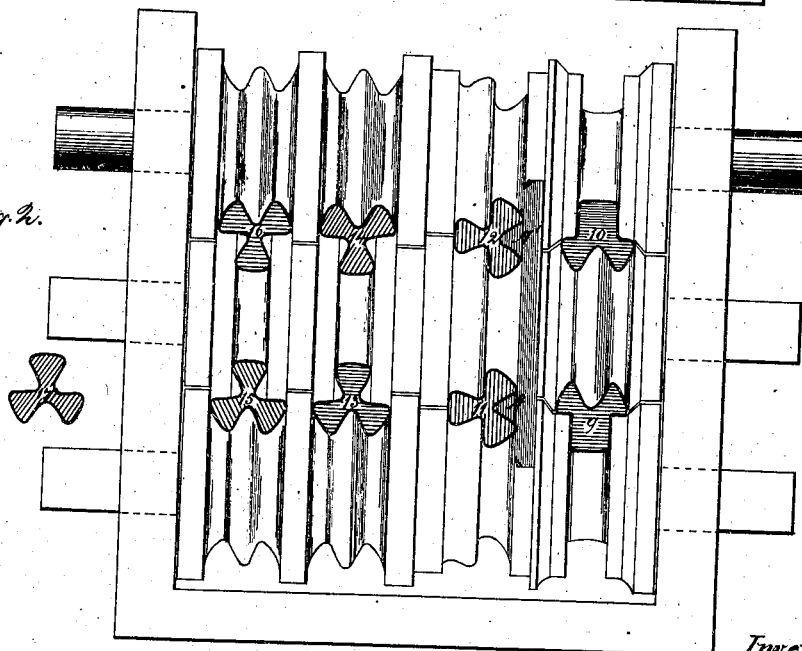


Fig. 2.



Witnesses.  
Thellwald  
J. H. Layman

Inventor.  
James Gower  
By Humphreys & Bros

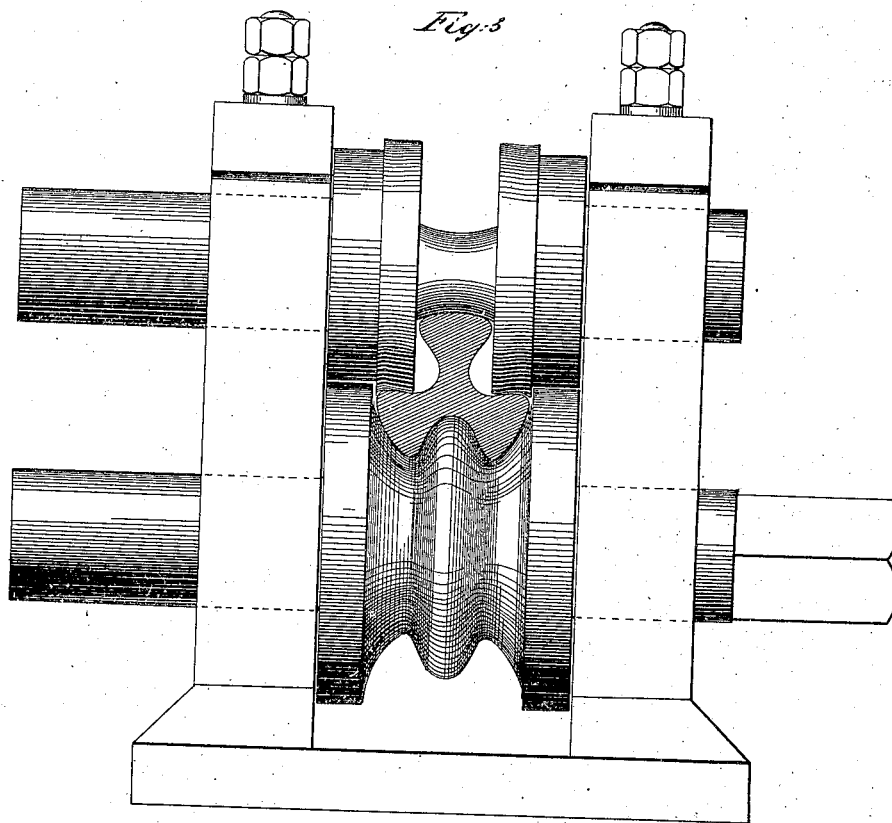
No. 54,329.

PATENTED MAY 1, 1866.

J. GOWER.

ROLLS FOR MANUFACTURING THREE HEADED RAILROAD RAILS.

2 SHEETS—SHEET 2.



Witnesses.  
Phillipward  
J. H. Lyman

Inventor.  
James Gower  
By Knight Bros

# UNITED STATES PATENT OFFICE.

JAMES GOWER, OF IRONTON, OHIO.

## IMPROVEMENT IN ROLLS FOR MANUFACTURING THREE-HEADED RAILROAD-RAILS.

Specification forming part of Letters Patent No. 54,329, dated May 1, 1866.

*To all whom it may concern:*

Be it known that I, JAMES GOWER, of Iron-ton, Lawrence county, Ohio, have invented new and useful Rolls for Making Three-Headed Railroad-Rails; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is an axial section of a three-high set of roughing-rolls. Fig. 2 is an axial section of a three-high set of finishing-rolls. Fig. 3 is a side elevation of a pair of two-high rolls for reducing or giving a final and definite size and finish to the work.

I take a sufficient number of slabs to build up an ordinary square or rectangular pile about seven inches broad by eight inches high. The first two passes, 1 and 2, serve to compact the pile. I commence forming my rail in the third and fourth passes, 3 and 4, of my roughing-rolls, as the present ordinary T-rail is formed. The following passes—to wit, 5, 6, 7, and 8—of my roughing-rolls serve to compact and elongate the pile, and to cause it to approximate the form suitable for introduction to the finishing-rolls. In the first and second passes,

9 and 10, of the finishing-rolls two of the three heads have begun to be formed. In the grooves for passes Nos. 11 and 12 are secured stationary mandrels A A', which, occupying the channel between the two already-formed heads, prevent their being crowded together during the formation of the third and remaining head, which takes place at passes 11 and 12. From passes 12 to 13 the pile is turned one-fourth around, and thence through passes 14 to 17, inclusive, it is turned one-third around each time. Passes 15 and 17 are made in the same direction and through the same groove, but with a different presentation of the individual heads each time.

I claim herein as new and of my invention—

The arrangement of rolls, Figs. 1 and 2, and mandrels A A', or their equivalents, for the manufacture of three-headed railroad-rails, substantially as set forth.

In testimony of which invention I hereunto set my hand.

JAMES GOWER.

Witnesses:

J. S. PERRY,  
H. C. BURR.