

(No Model.)

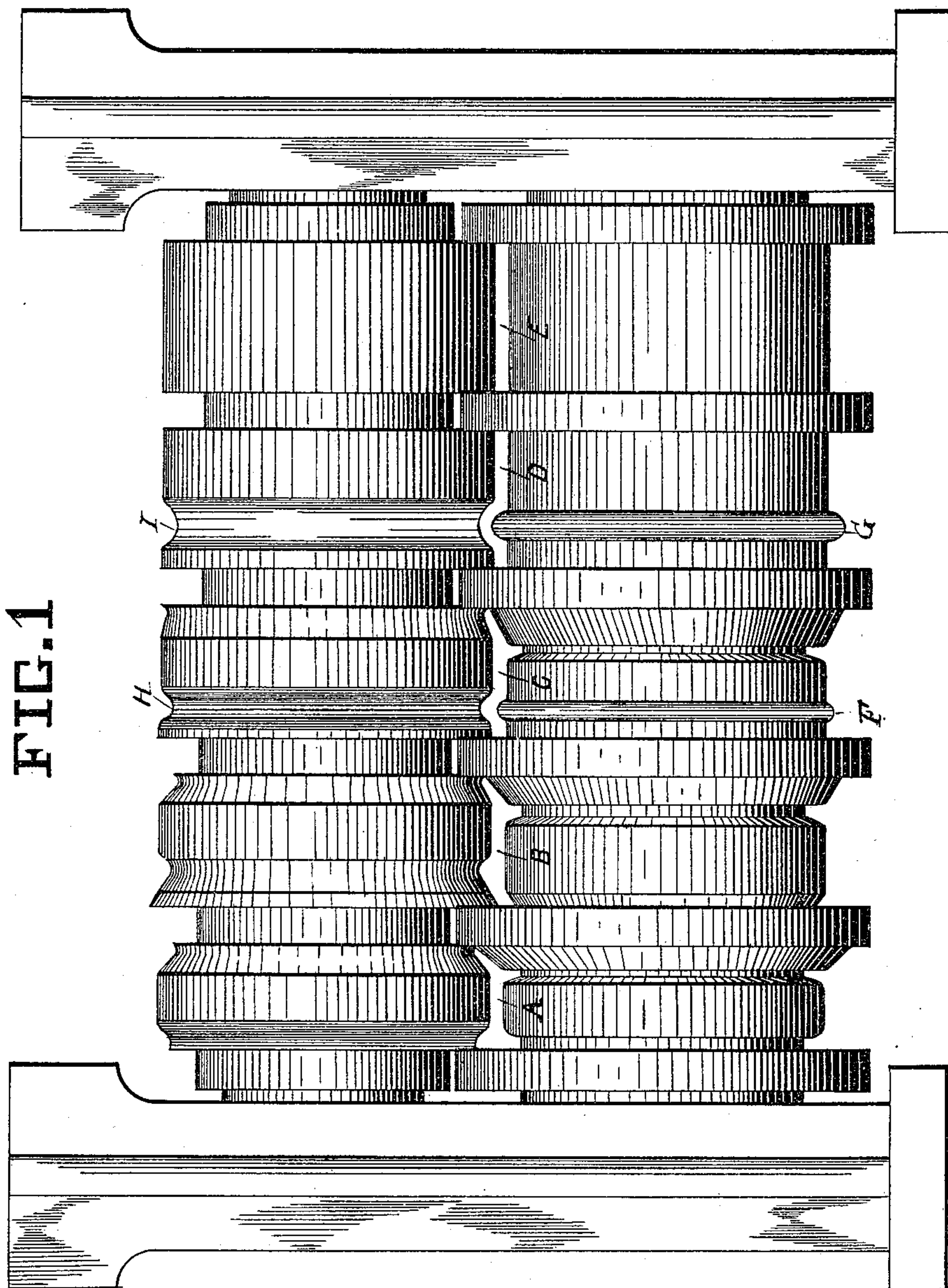
2 Sheets—Sheet 1.

E. D. WASSELL.

ROLL FOR REROLLING OLD RAILS.

No. 336,272.

Patented Feb. 16, 1886.



WITNESSES
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(No Model.)

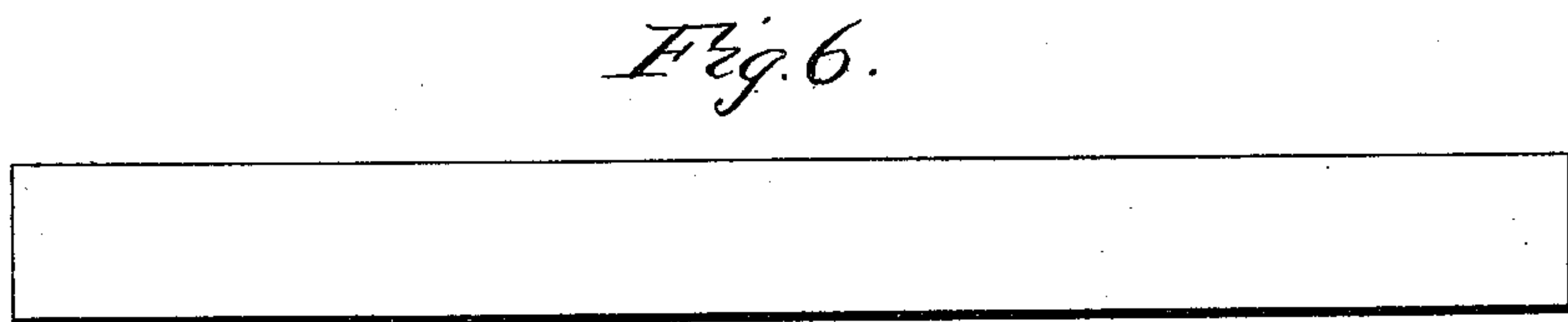
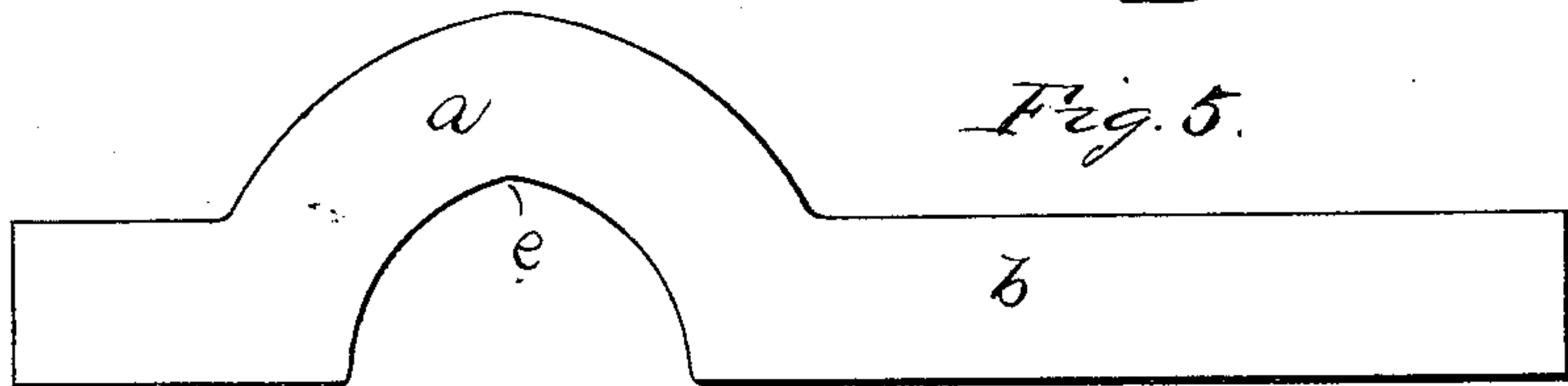
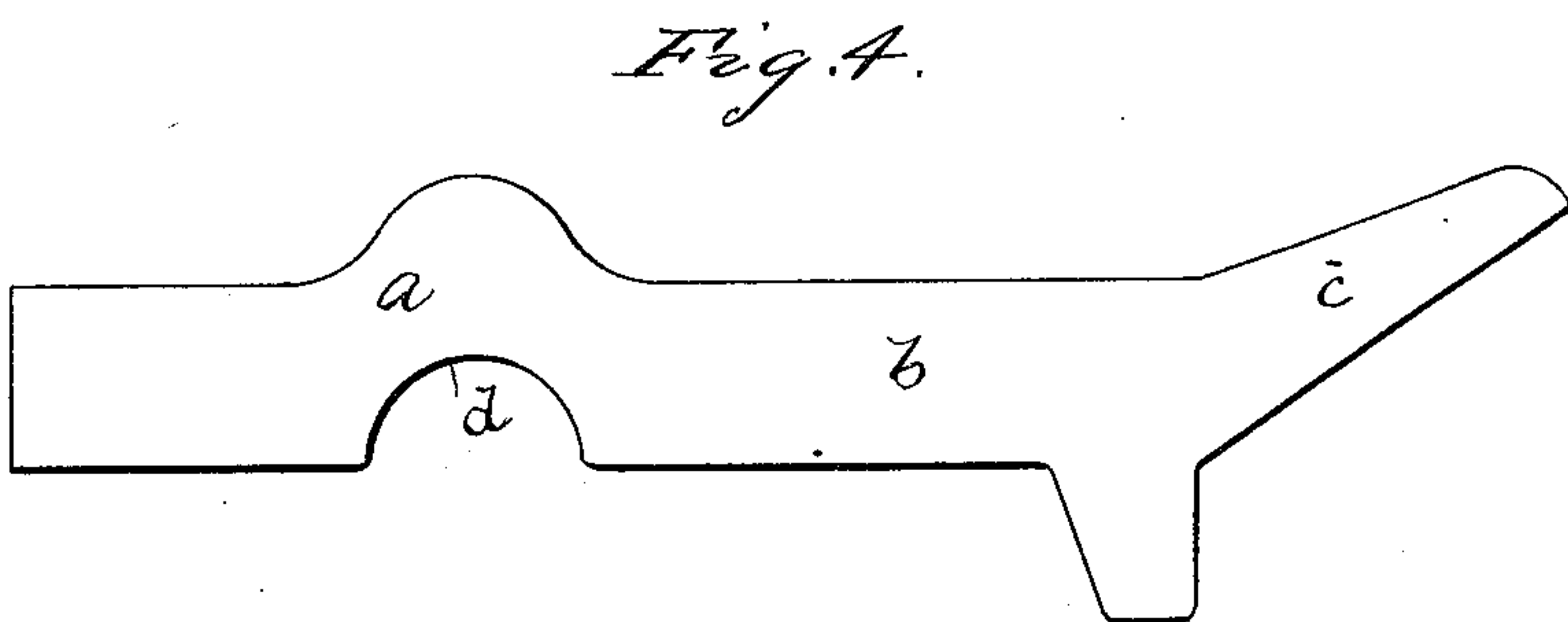
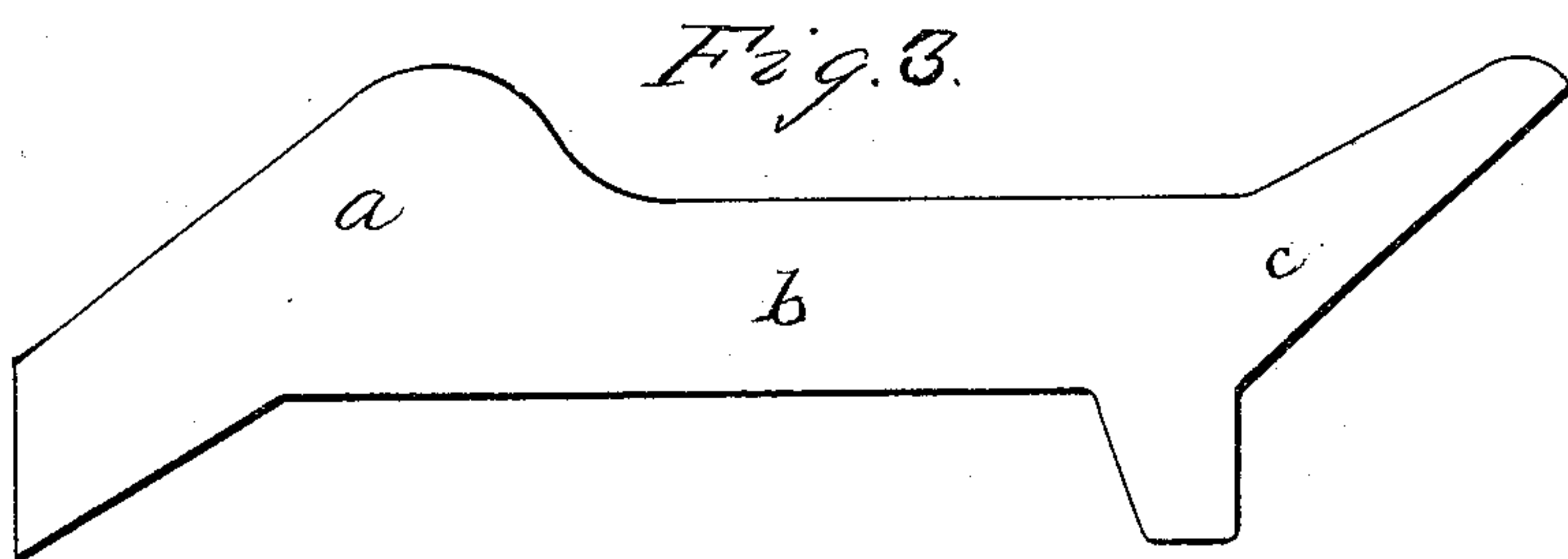
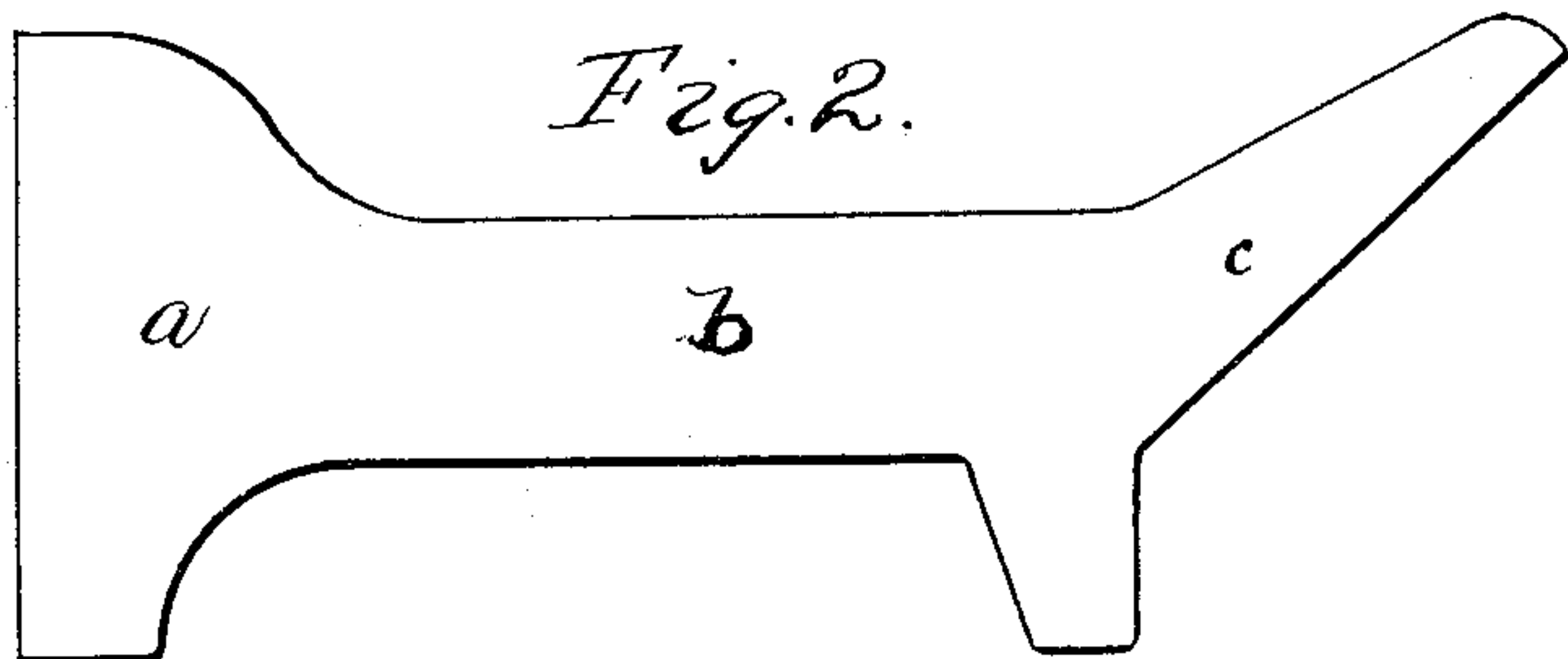
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UNITED STATES PATENT OFFICE.

EDWIN D. WASSELL, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO ANN ISABELLA WASSELL, OF SAME PLACE.

ROLL FOR REROLLING OLD RAILS.

SPECIFICATION forming part of Letters Patent No. 336,272, dated February 16, 1886.

Application filed September 7, 1885. Serial No. 176,435. (No model.)

To all whom it may concern:

Be it known that I, EDWIN D. WASSELL, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Rolling-Mills for Reducing Worn-Out Rails; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention has for its object the formation of wide flat bars from worn-out rails, in contradistinction to the usual form of bar constructed therefrom.

By the ordinary means heretofore employed for reducing worn-out rails to bars the usual width is about four inches and the thickness five-eighths of an inch, corresponding to the ordinary muck-bar in the process of rolling. It is a well-known fact that the length of the sheet of iron or steel in the rolling process is dependent upon the width of the bar from which the sheet is rolled; and in the present condition of manufactures it is desirable to produce sheet metal from bars of iron or steel of a given width and thickness in the most expeditious manner possible and with the least number of heats—that is to say, in the reworking of iron or steel, as of old rails, it is desirable to approach as near as possible the sheet form at a single heat, so that in bringing into a sheet of any desired thickness, width, and length only two heats are required for this purpose when such reduction is accomplished by the means hereinafter described.

To enable others skilled in the art with which my invention is most nearly connected to make and use it, I will proceed to describe its operation.

In the accompanying drawings, which form part of my specification, Figure 1 represents a front elevation of a pair of rolls provided with grooves, the contour of which is clearly shown. Figs. 2, 3, 4, 5, 6 represent transverse sections of the rail after passing through the several grooves of the rolls shown in Fig. 1.

The worn-out rail is heated in a suitable furnace to the forging heat. It is then passed through the grooves A, B, C, D, and E of the rolls shown in Fig. 1 in consecutive passes.

When the rail has been passed through the groove A, it will be of the form shown in Fig. 2, and when passed through the groove B it will assume the form shown in Fig. 3, and when passed through the groove C it will be of the form shown in Fig. 4, and when passed through the groove D it will be of the form shown in Fig. 5, and when passed through the groove E it will be a flat bar, as shown in Fig. 6.

The part *a* in Figs. 2, 3, 4, 5 represents the portion constituting the original head or tread of the rail; *b*, the web, and *c* the base, of the rail.

The distinctive feature in my improvement consists in the peculiar form given to the rail after passing through the different grooves in the rolls, and the means employed for imparting width to the bar through the medium of the projections F and G on one of the rolls and corresponding grooves, H I, in the other roll, the increased width of the bar being proportioned to the size of said projections and grooves. It will readily be observed by the skillful roller that after the longitudinal indentations indicated at *d e* in Figs. 4 and 5, which are formed by the rail passing through the grooves C D, in the final pass through the groove E for reducing the rail to a flat bar, its width will be greatly increased, which increased width is due to the longitudinal groove *d e* formed by the projections F G and corresponding grooves, H I, and that the desired increase of width of the bar will be dependent upon the depth and width of the grooves *d e* and the size of said projections and corresponding grooves in the rolls.

Having thus described my improvement, what I claim is—

In a mill for the reduction of old and worn-out rails, rolls having grooves A, B, C, D, and E of the contour shown, the projections F and G, and corresponding supplementary grooves, H I, substantially as herein described.

In testimony whereof I have hereunto set my hand this 19th day of June, A. D. 1885.

E. D. WASSELL.

Witnesses:

A. C. JOHNSTON,
JAMES J. JOHNSTON.