W. P. PORTER.

MACHINE FOR ROLLING AXLES.

No. 75,457. Patented Mar. 10, 1868.

Fig. 2.

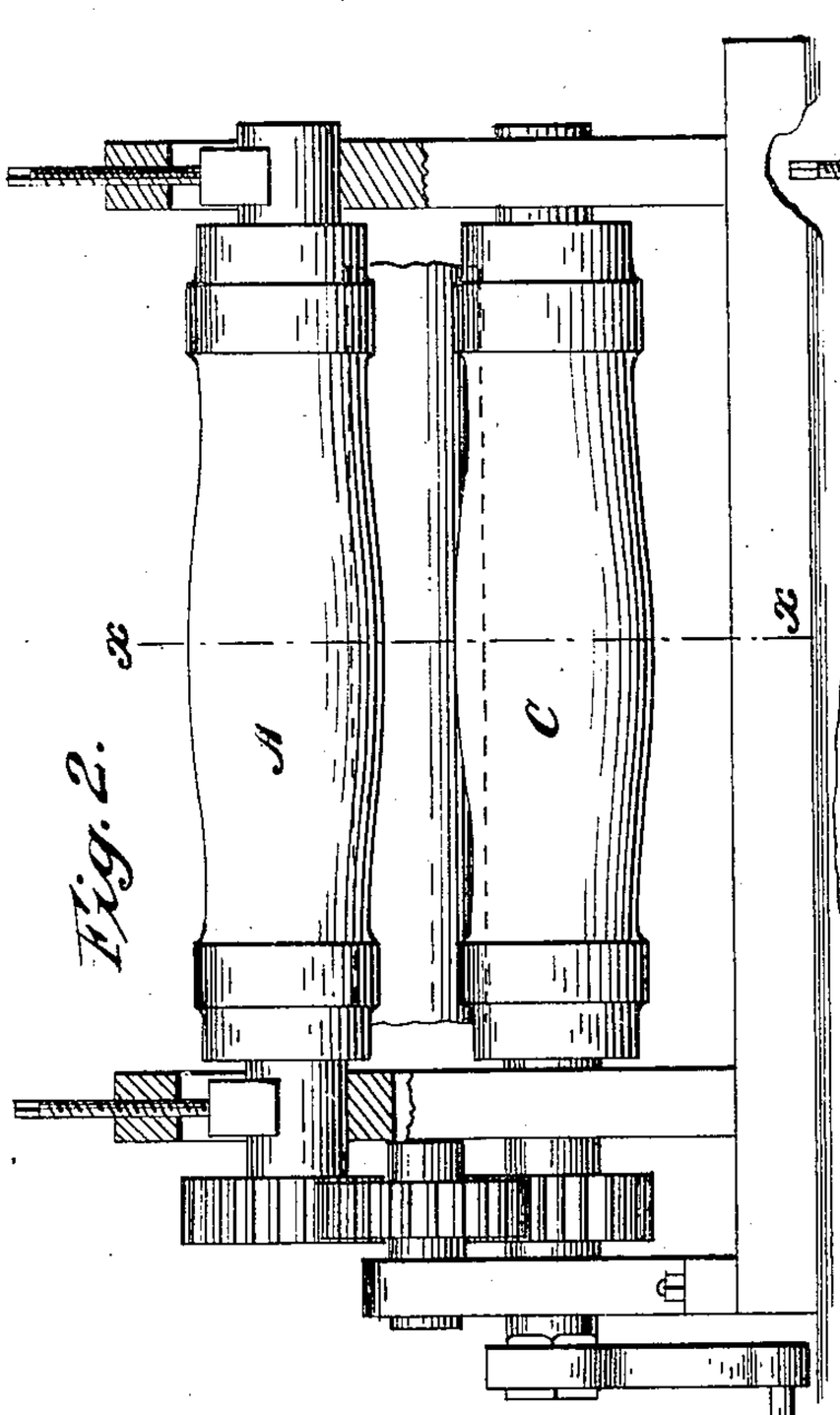


Fig. 4.

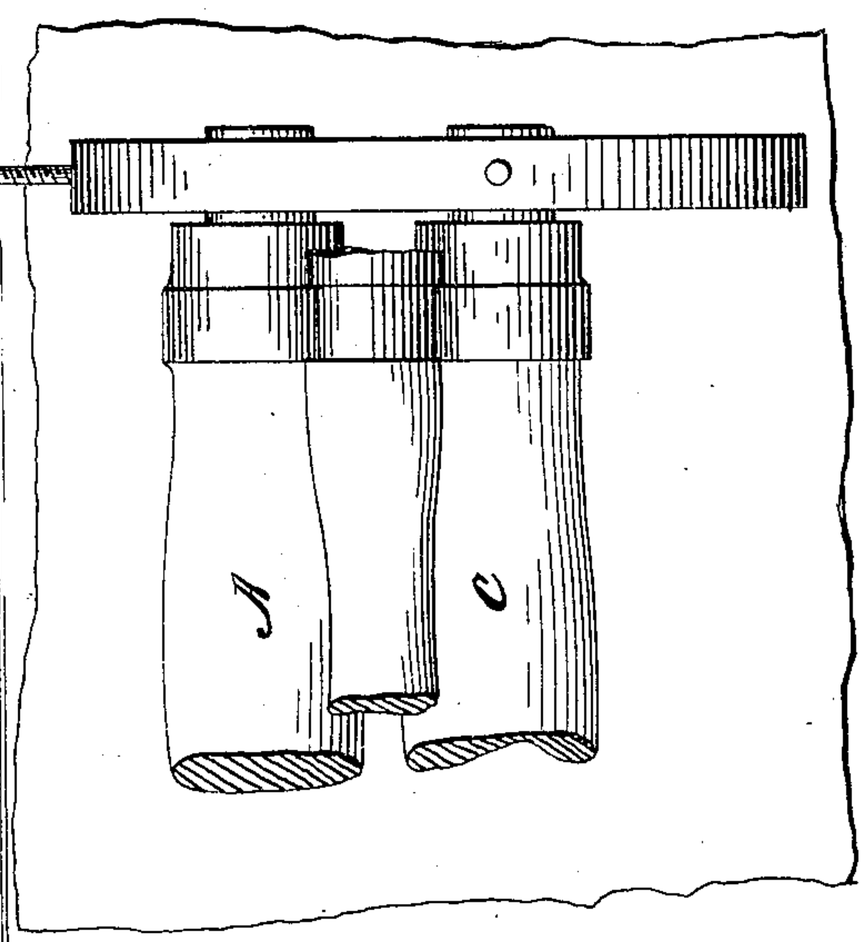


Fig. 1.

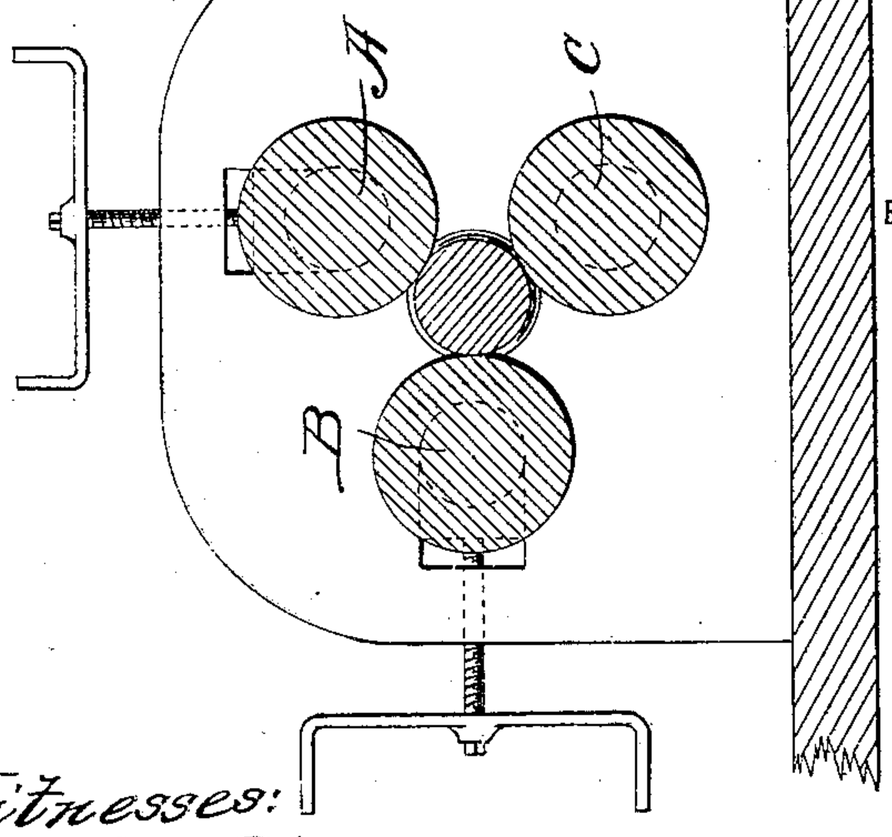
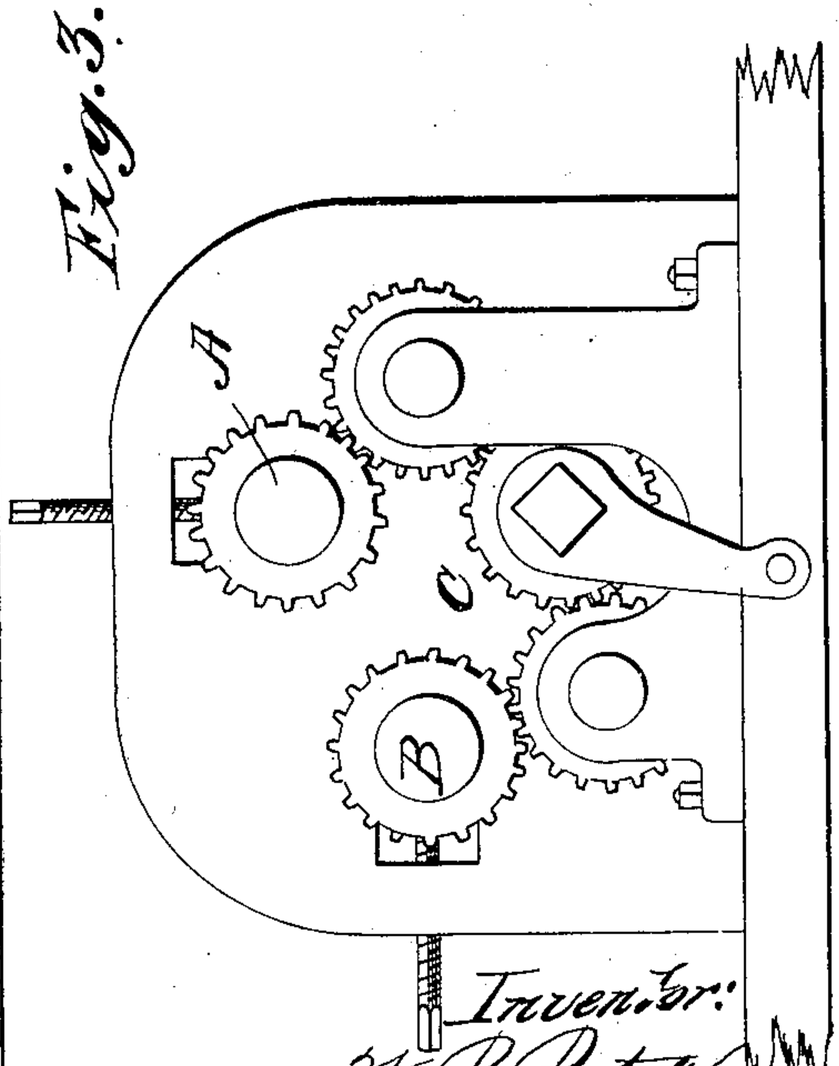


Fig. 3.



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Letters Patent No. 75,457, *dated March* 10, 1868.

IMPROVED MACHINE FOR ROLLING AXLES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM P. PORTER, of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Rolling Iron and other metals; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 represents a cross-section of my improved rolls for rolling axles or other articles longitudinally, taken in the line *x x*, fig. 2.

Figure 2 represents a front view.

Figure 3 represents an end view, showing the gear-connections of the rolls.

Figure 4 is a partial side view of the rolls, showing the position of an axle when rolled.

Similar letters of reference indicate corresponding parts.

This invention relates to an improvement in rolling iron and other metals in the form of railroad-axles and other metal bars, and consists in the combination of a vertically-adjustable and a horizontally-adjustable roll, and a roll having fixed bearings, arranged in relation to one another and to the frame in such a manner that the iron to be rolled may be dropped between the upper and side roll, and, after the rolling has been completed, discharged between the side and bottom roll, as will be hereinafter more fully described.

Three rolls, A B C, are geared together to run in one direction, A and B being hung in such manner that they can be moved further from or nearer to the roll C by means of screws *a b*. The rolls are all of the same size and pattern, according to the article to be rolled between them, the projections and depressions on their surfaces corresponding to the different shapes and diameters required for railroad-axles or other metal bars, as shown in figs. 2 and 4.

When an axle or other article is to be rolled, a round bar is first forged or rolled a trifle larger than the size required for the finished article. The roll A is raised to admit the round bar when hot between the rolls lengthwise. By the revolution of the rolls in one direction, and continued pressure upon the bar while hot by means of the adjustable rolls A B, the bar takes the shape corresponding with the shape of the rolls, and is thus finished by rolling. The roll B is withdrawn, and the axle or other article drops out. Iron or steel railroad-axles or other metal bars, of irregular forms and varying diameters, may thus be rolled as desired.

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

The combination of the adjustable rolls A and B and the roll C, constructed and arranged in relation to one another, and to the frame which supports them, as and for the purpose herein described.

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