

J. RUSSELL.

Rolls for Rolling Horseshoe Blanks.

No. 150,085.

Patented April 21, 1874.

Fig. 1.

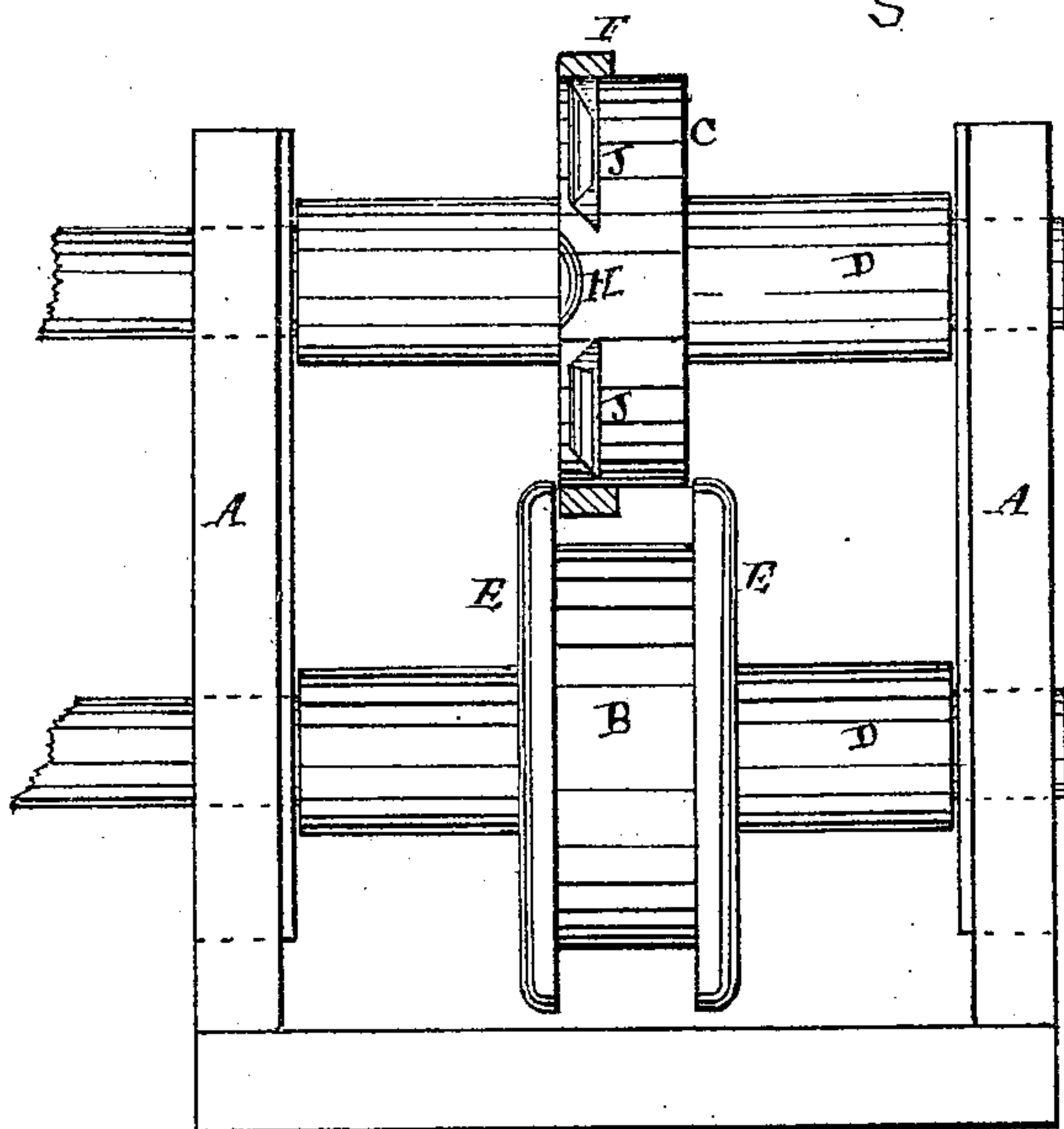


Fig. 3.

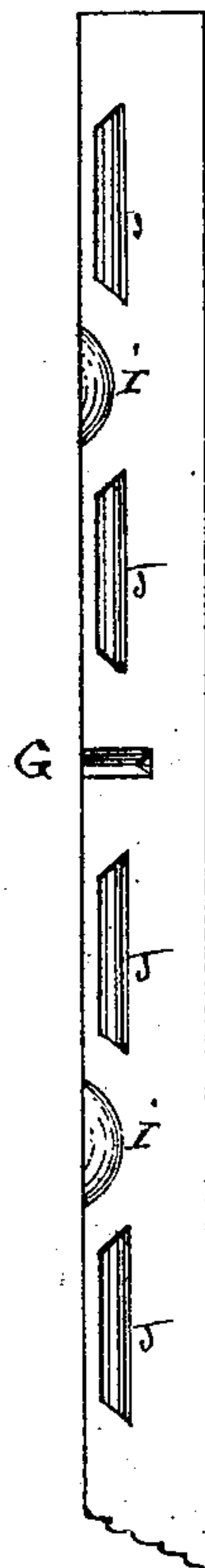
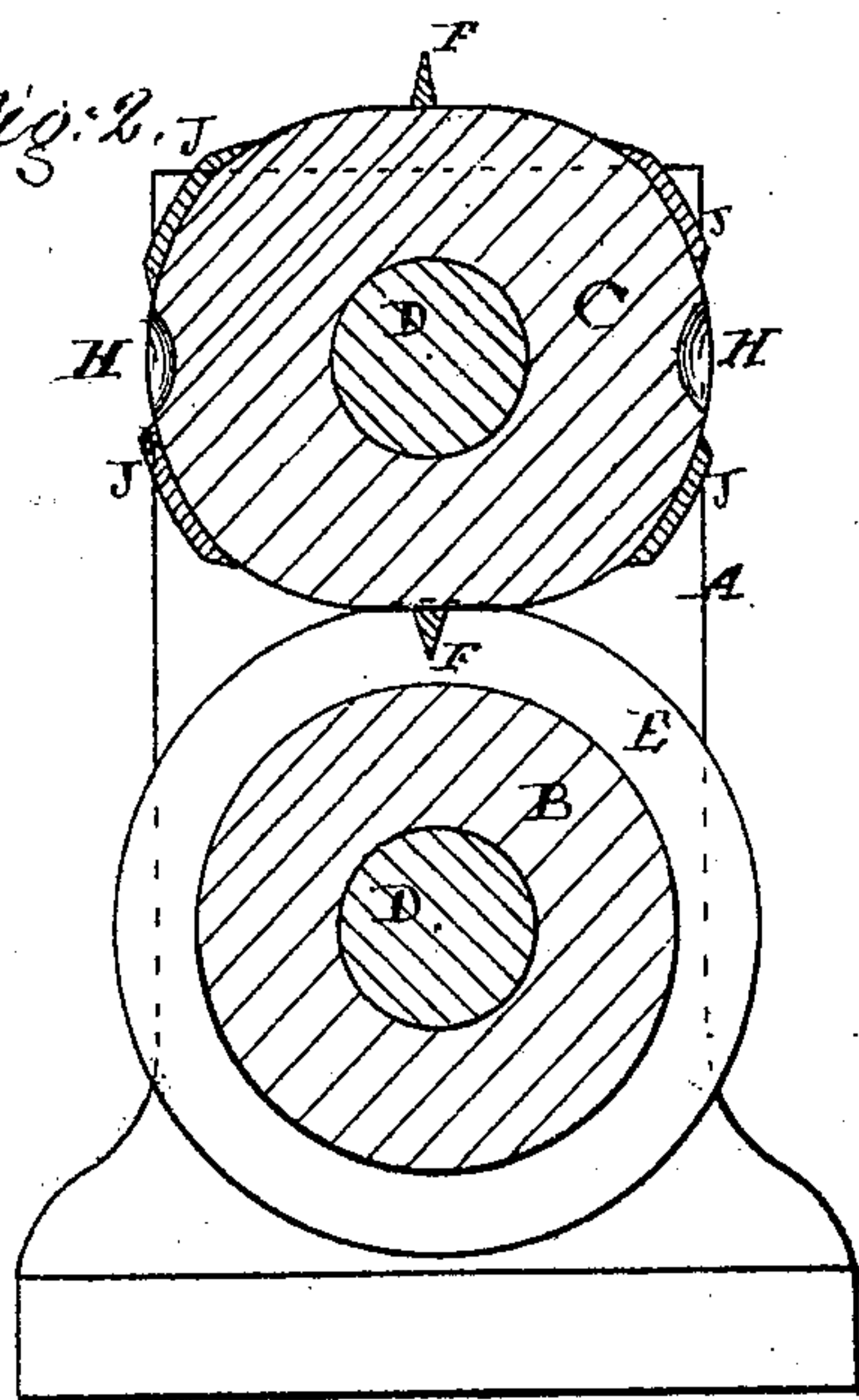


Fig. 2.



Witnesses  
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JACOB RUSSELL, OF NEW YORK, N. Y.

## IMPROVEMENT IN ROLLS FOR ROLLING HORSESHOE-BLANKS.

Specification forming part of Letters Patent No. **150,085**, dated April 21, 1874; application filed January 22, 1874.

*To all whom it may concern:*

Be it known that I, JACOB RUSSELL, of the city, county, and State of New York, have invented an Improvement in Roller-Dies for Shaping and Forming Blanks for Horseshoes out of Continuous Bars of Metal, of which the following is a specification:

In my invention of an improvement in blanks for horseshoes, patented January 6, 1874, is shown the object of my present invention, which consists in a combination of rolls for rolling blanks, in which the face of the die-roll is shaped so as to form the toe-supporting reserve of metal in the blank.

But to describe my invention more particularly, I will refer to the accompanying drawings forming a part of this specification, the same letters of reference wherever they occur referring to like parts.

Figure 1 is a front view of the rollers or machine. Fig. 2 is a vertical sectional view of the same through the rolls. Fig. 3 is a plan view of a blank of metal as delivered from the rolls, and ready to be divided into the proper lengths to form the shoe.

Letter A represents the frame, in which the rolls B and C are arranged, on suitable axles D, running in adjustable boxes in the frame of the machine. The roll B is the anvil, and is made on a true circle, with two cheek-pieces, E, to support the blank of metal laterally while being shaped by the die-roller C. This roller is made circumferentially the length of two horseshoe-blanks, having at the points F chisels or cutters for cutting off each horseshoe-blank as the bar of metal passes between the rolls, as indicated at G, Fig. 3. On the face of the die-roll C at one edge, and at its middle part, lengthwise of its greatest diameter, are cut out two concave segments of metal, H, whereby the blank of metal will be thickened at that point, as shown at I, Fig. 3,

to form a reserve of metal for forming the toe-support on the horseshoe, without diminishing the strength of the shoe-plate, as is the case where the toe-support is formed by gouging out the metal to form it, as is commonly the way of making horseshoes; also, on the face of the die-roll C, and circumferentially of it, is formed, at each side of the toe-supporting reserve of metal, nail-head countersinks J, having their inner edges perpendicular, and beveling off outward and downward. The object of this formation is to throw the metal raised by the countersinks outward, so as to strengthen the outer edges of the shoe when formed, and thus cover the heads of the nails, and prevent their being rapidly worn off or breaking off, as is the case where the heads of nails are not well protected. The shape of the die-roll C is an oblong oval—that is, with curvilinear ends, and flattened sides. The object of making the roll of this shape is to form the blank of metal with an increased thickness of metal at the heel of the shoe, and thus strengthen it, not only for making a strong and solid heel-calk, but at the same time greatly increase the strength of the shoe at a point most liable to wear out.

Having now described my invention, I will proceed to set forth what I claim, and desire to secure by Letters Patent of the United States:

My improvement in machines for rolling blanks for horseshoes in continuous bars of metal, the oblong oval-shaped die-roll C, made with cavities H, for forming the toe-clips, in combination with the anvil-roll B, arranged and operating for the purposes and in the manner set forth.

JACOB RUSSELL.

Witnesses:

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