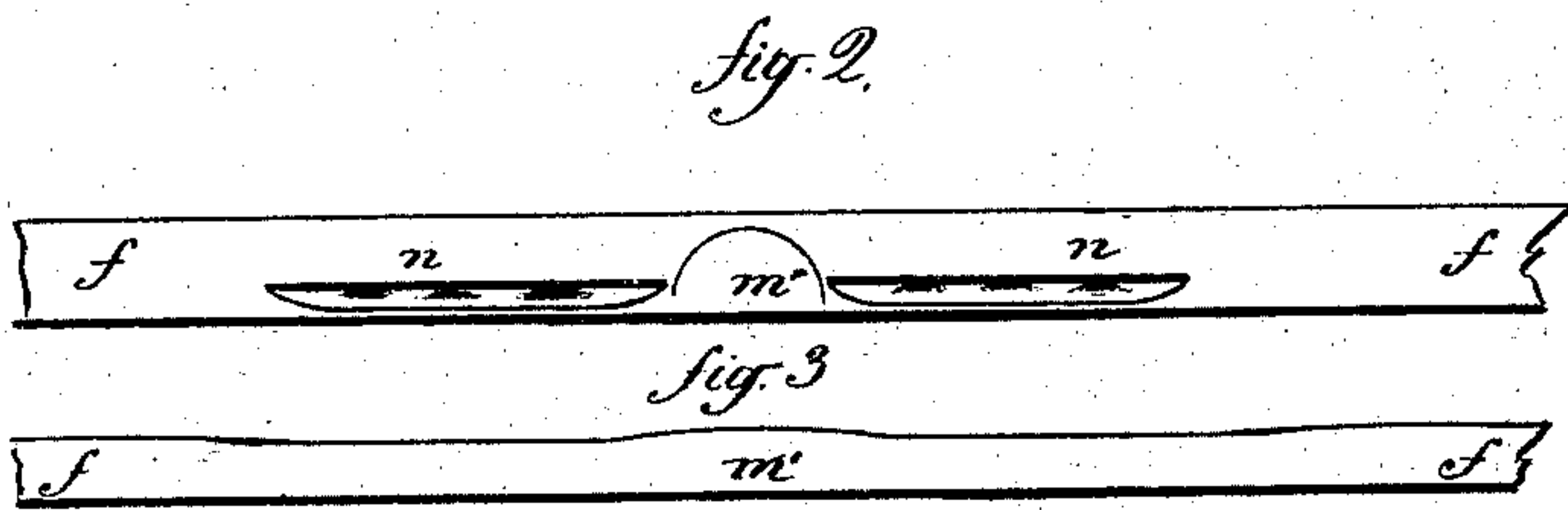
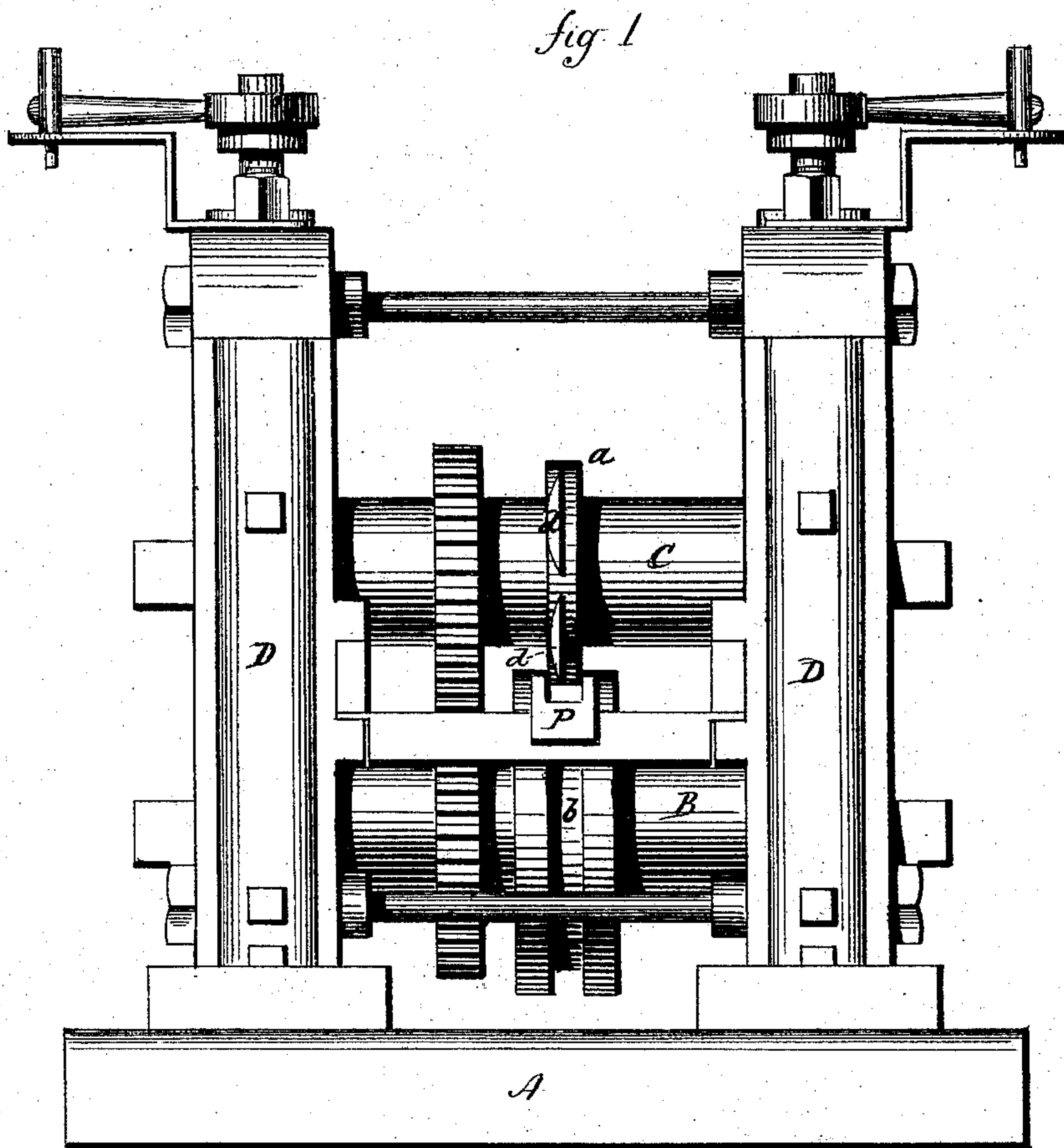


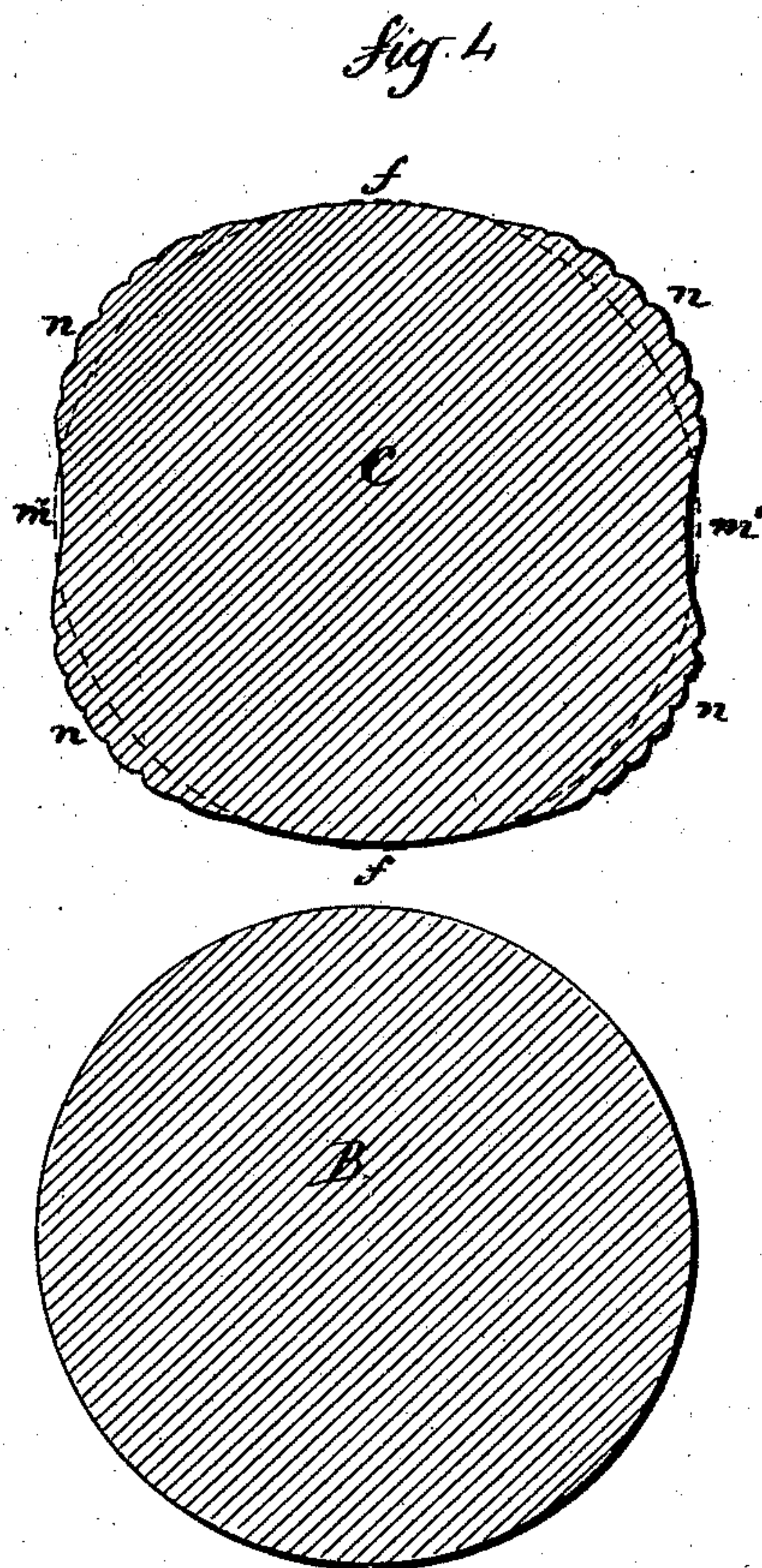
**G. W. LESTER.**  
**Rolls for Rolling Horseshoe-Blanks.**  
 No. 156,803. Patented Nov. 10, 1874.



Witnesses.  
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*A. J. Tibbitts*

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# UNITED STATES PATENT OFFICE.

GEORGE W. LESTER, OF NEW HAVEN, CONNECTICUT.

## IMPROVEMENT IN ROLLS FOR ROLLING HORSESHOE-BLANKS.

Specification forming part of Letters Patent No. **156,803**, dated November 10, 1874; application filed April 22, 1874.

*To all whom it may concern:*

Be it known that I, GEORGE W. LESTER, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machine for Rolling Blanks for Horseshoes; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view; Fig. 2, a top view of the bar as it comes from the machine; Fig. 3, an outside-edge view; and in Fig. 4 a transverse section of the rolls.

This invention relates to a machine for rolling bars of iron to be subsequently cut into blanks from which to make horseshoes, the object being to produce the blank, or a succession of blanks, so far completed that when bent into form the shoe will be complete; and the invention consists in a pair of rolls, one of which is plain and of the form required for the upper side of the blank, and the other for the under side, so as to give the requisite increased thickness at the heel and toe, and form the grooves for the nails, as more fully herein-after described.

A is the bed or base of the machine; B, the lower, and C the upper, roll, supported in up-rights D, and made adjustable therein, and caused to revolve together in substantially the usual manner for rolling-machines. On the lower roll B an annular groove, *b*, is formed, corresponding in width to the bar from which the blanks are to be formed, and on the upper roll C a corresponding annular

projection, *a*, is formed, having upon its surface projections *d*, corresponding to the nail-grooves to be formed in the blank. Between the projections on the part *a*, which form the grooves in the blank, the roll is constructed so as to make the toe portion thicker, as at *m'*, Fig. 3, and in Fig. 4, and at the other extreme of these projections the part *a* is diminished in diameter, so as to leave the heel portions *f* thicker than between the heel and the toe, as seen in Figs. 2 and 3, and in Fig. 4, the grooves represented at *n*. The same letters in Fig. 4 indicate the points on the roll which form corresponding parts on the blank, Figs. 2 and 3.

If the part *a* be of larger diameter than required for one blank, it should be sufficiently large for two or more, so that each full revolution will complete one or more full blanks, that the bar in passing through may be formed into a succession of blanks, which may be subsequently cut, and each blank bent into the required form.

A suitable guide, P, is arranged, through which to properly introduce the bar to the rolls.

I claim as my invention—

The two rolls B C, for rolling horseshoe-blanks, one constructed with an annular groove, *b*, the other with a corresponding annular projection, *a*, and with projections *n n* to form the nail-grooves, and with depressions *f m* to form the thickened toe and heel, substantially as specified.

GEO. W. LESTER.

Witnesses:

A. J. TIBBITS,  
J. H. SHUMWAY.