

D. G. GARRETSON.  
DIE FOR CUTTING STENCIL PLATES.

No. 40,747.

Patented Dec. 1, 1863.

Fig. 1.

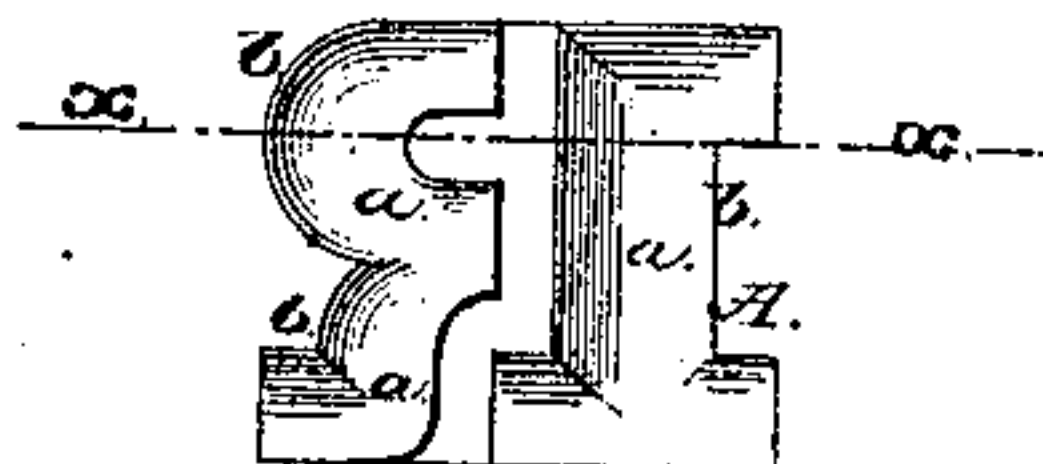
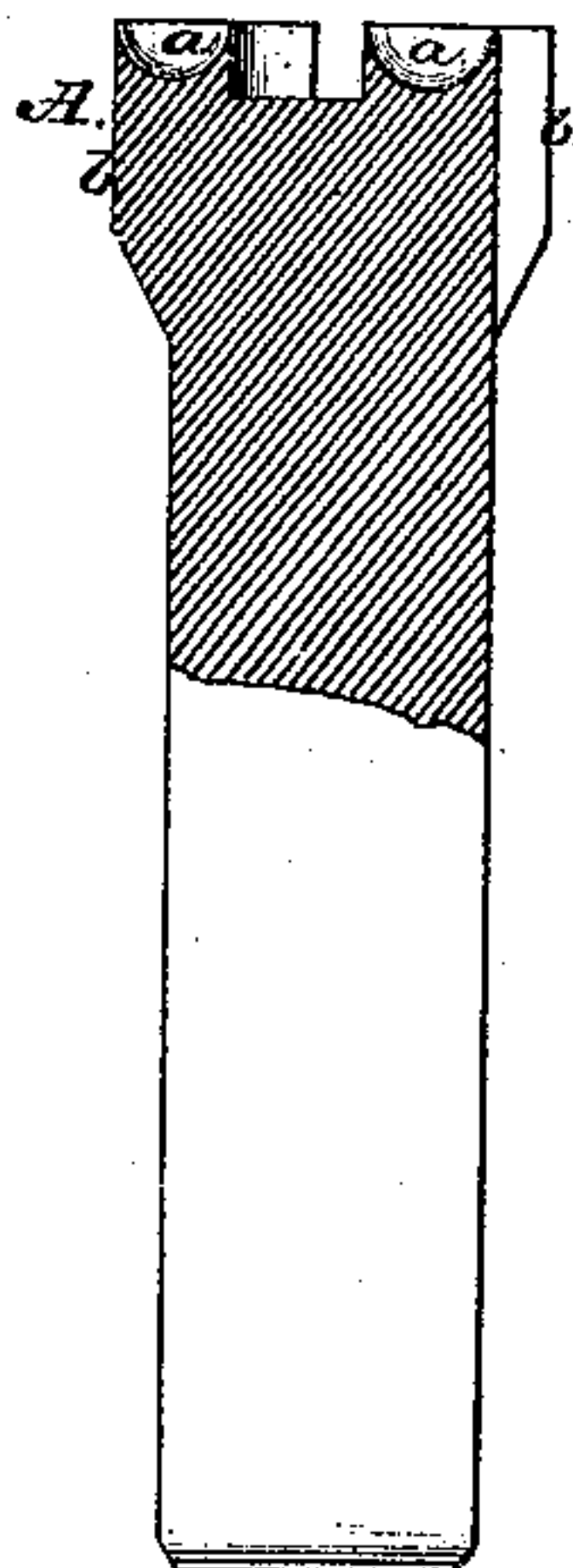


Fig. 2.



Attest:

*Wm. H. Douglas*  
*Geo. H. Rice*

Inventor:

*David G. Garretson*

# UNITED STATES PATENT OFFICE.

DAVID G. GARRETSON, OF NEW YORK, N. Y.

## IMPROVEMENT IN DIES FOR CUTTING STENCIL-PLATES.

Specification forming part of Letters Patent No. 40,717, dated December 1, 1863.

*To all whom it may concern:*

Be it known that I, DAVID G. GARRETSON, of the city, county, and State of New York, have invented a new and Improved Die for Cutting Stencil-Plates; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a face view of my invention; Fig. 2, a longitudinal section of the same, taken in the line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in an improvement in the formation of the cutting-edges of the dies as hereinafter described, whereby the same are rendered more durable than usual and made to cut with greater facility. These ends are attained by making or cutting the die within the outline of the letters of semicircular form, or of other curved form, approximating thereto, as hereinafter set forth.

To enable those skilled in the art to fully understand my invention, and to construct a die in accordance therewith, I will proceed to describe it.

A represents a die, which is cut so as to form the letter R. The interior of the letter is sunk so as to form a groove of semicircular or an approximate form in its transverse section, as clearly shown at *a* in Fig. 2, and the

outer surfaces of the letter are vertical, or nearly so, as shown at *b* in Fig. 2. By this mode of sinking the die I obtain a sharp or acute cutting-edge with a taper that will admit of the die penetrating the plate much easier than the inclined plane surfaces of the ordinary dies. The hollow or concave surfaces, combined with the vertical surfaces, form narrower or thinner cutting edges, and thus the outer vertical surfaces greatly facilitate the penetration of the cutting edges into the metallic plate. The outer surfaces of the ordinary dies are beveled or inclined in order to make the cutting-edges as thin as possible; but the beveling or inclining of the outer surfaces give a wedge shape to the cutting-edges and have a tendency to make them bind in the plate, a difficulty which is fully obviated by my invention.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent, as an improved article of manufacture—

A die for cutting stencil-plates, formed by sinking a groove of semicircular or an approximate form within the outline of the letter or figure of the die, and having the outer surfaces of the outline vertical, or nearly so, substantially as herein set forth.

DAVID G. GARRETSON.

Witnesses:

M. M. LIVINGSTON,  
THOS. S. J. DOUGLAS.