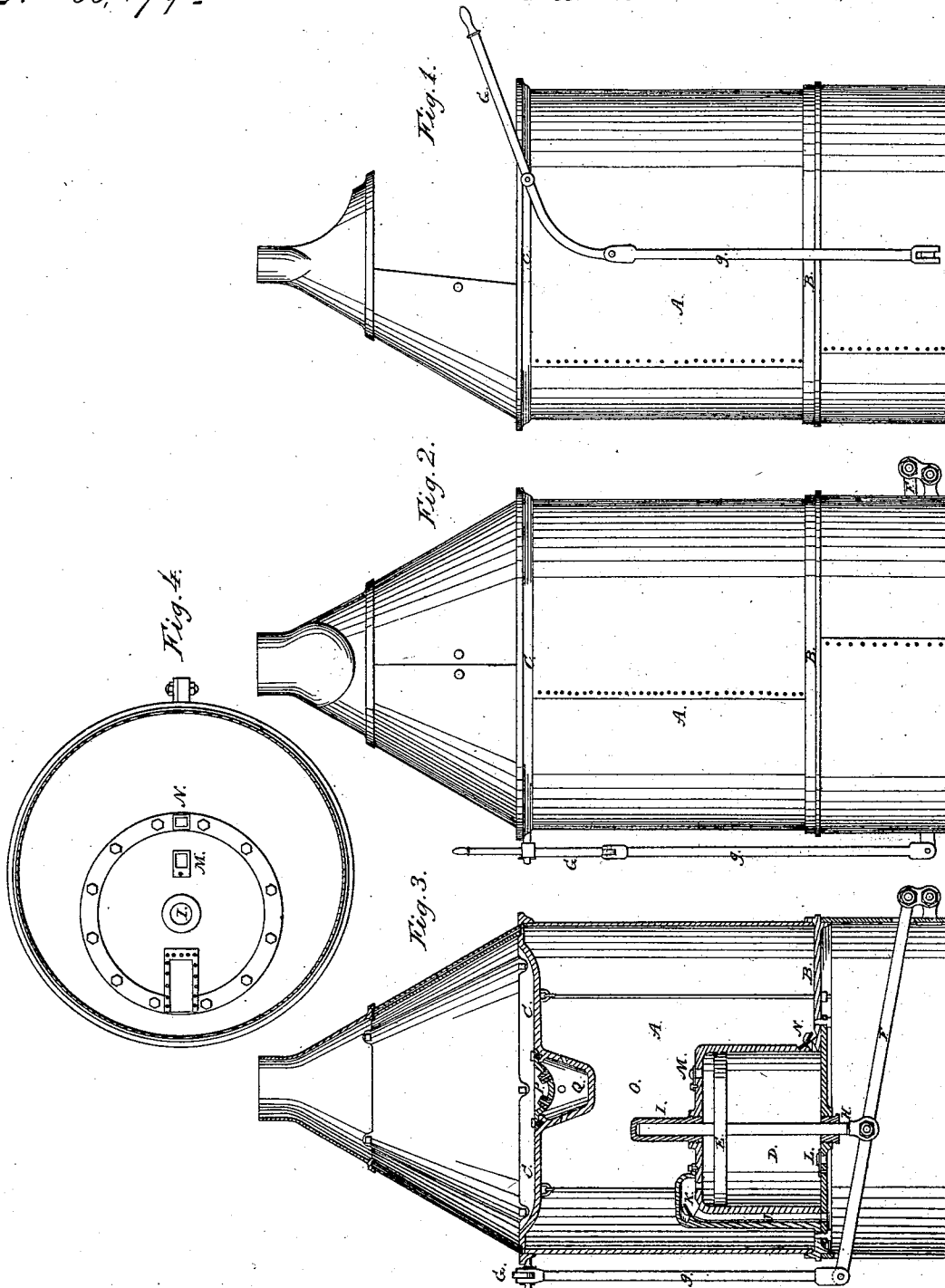


*M. De La Montanya,*

*Portable Forge,*

*Patented Oct. 15, 1861.*

*N<sup>o</sup> 33,479.*



*Witnesses:*  
*S. P. Clark*  
*J. B. Dayton*

*Inventor:*  
*Mathew De La Montanya*

# UNITED STATES PATENT OFFICE

MATHEW DE LA MONTANYA, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVED BLACKSMITH'S PORTABLE FORGE.

Specification forming part of Letters Patent No. 33,479, dated October 15, 1861.

*To all whom it may concern:*

Be it known that I, MATHEW DE LA MONTANYA, of the city and county of San Francisco, and State of California, have invented a new and useful Portable Forge; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side view of the forge; Fig. 2, a front view of the same with the doors of the hood closed; Fig. 3, a vertical section, and Fig. 4 a top view with the hood and the top of the forge removed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct the cylindrical body A of my forge of sheet-iron riveted air-tight. Bottom and top plates B and C are also riveted or otherwise fitted air-tight in the said body. On the bottom plate rests the blowing-cylinder D, in which the piston E can be made to work up and down by the lever F, the connection *g*, and the handle G, the piston-rod being made air-tight at bottom by the stuffing-box H and at the top by the guide-box I, which is not open outward. The cylinder has a suction-passage J for the downward stroke of the piston and a suction-valve K for the same, and a suction-valve L for the upward stroke. Discharge-valves M and N are provided for each end of the cylinder, which deliver the air in the hermetically-closed chamber O, formed by the body of the forge. The

top has a tuyere P, with ash-box Q attached. The ash-box is pierced with four holes in its sides some distance above the bottom, and the tuyere has also one or more small nozzles to deliver the blast into the fire. The hood may be of any usual construction.

The operation is as follows: An alternate motion being given to the handle G, a reciprocating motion is communicated to the piston E, and by means of the suction-valves K and L and of the discharge-valves M and N a constant supply of air is forced into the chamber formed by the body of the forge, which is thus made to answer the purpose of an air-chamber to secure an even and steady blast, which finds its way through the apertures in the ash-box, and thence through those of the tuyere into the fire. Any ashes that may fall through the nozzles of the tuyere are caught in the ash-box, where they lie undisturbed by the blast which is for this purpose introduced into the ash-box at some distance above the bottom.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The application of the double-acting blowing-cylinder to portable forges.
2. The closed chamber O, occupying the main body of the forge and employed to equalize the blast between the cylinder D and tuyere P, as explained.

San Francisco, April 14, 1860.

MATHEW DE LA MONTANYA.

Witnesses:

I. P. CLARK,  
J. B. DAYTON.