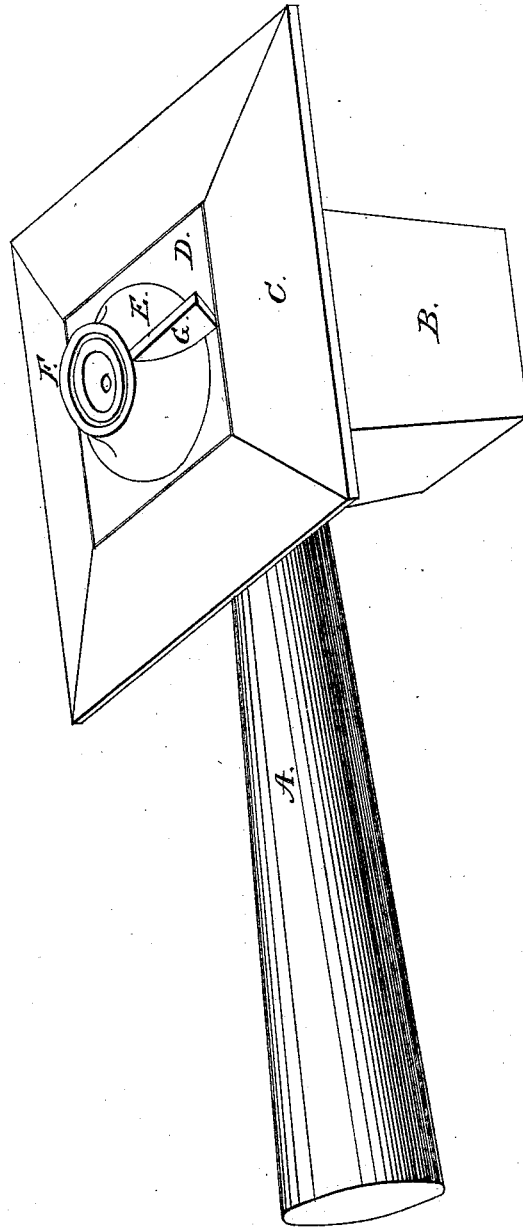


*D. S. Loy,*

*Tuyere,*

*N<sup>o</sup> 53,313.*

*Patented Mar. 20, 1866.*



# UNITED STATES PATENT OFFICE.

DANIEL S. LOY, OF GRACEHAM, MARYLAND.

## IMPROVEMENT IN TUYERES.

Specification forming part of Letters Patent No. 53,313, dated March 20, 1866.

*To all whom it may concern:*

Be it known that I, DANIEL S. LOY, of Graceham, in the county of Frederick and State of Maryland, have made a new and useful Improvement in Tuyeres; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, sufficient to enable one skilled in the art to which it appertains to construct and use the same, reference being had to the accompanying drawing, which is made part of this specification, and in which my improved tuyere is represented by a perspective view.

My improvement consists of a removable plate over the chamber of the tuyere, provided with a raised muzzle and with a guide-plate for the direction of the shovel with which the smith cleans the clinker, cinder, and dust from the face which contains the blast-aperture of the tuyere.

The object of raising the muzzle is to enable the tuyere to be used for a greater length of time without emptying the forge, and the object of the guide-plate is to direct the shovel of the smith to enable him with readiness and dispatch to clear off the face of the tuyere when clinkers or cinders have stopped up the blast-aperture.

Without any means of direction of the shovel the exact level of the raised face is not readily found, and as it is desired to be done by a single stroke effectually, a means of direction is important.

In the drawing, A is the blast-pipe proceeding from the bellows; B, the air-chamber; C, the plate forming the bottom of the furnace-hole of the forge. D is a plate which is made removable, so as to permit the emptying of the chamber B, in which ashes will accumulate, and also to enable the guide-plate G to occupy such a position as to be most convenient to the smith when he removes adhering clinker from the face F of the raised muzzle E. In the face F is an orifice through which the blast of air is driven to sustain the combustion of the fuel in the forge.

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

The combination, with the removable plate D, of the raised muzzle E and guide-plate G, substantially as and for the purpose described.

DANIEL S. LOY.

Witnesses:

EDWARD H. KNIGHT,  
JAS. L. EWING.