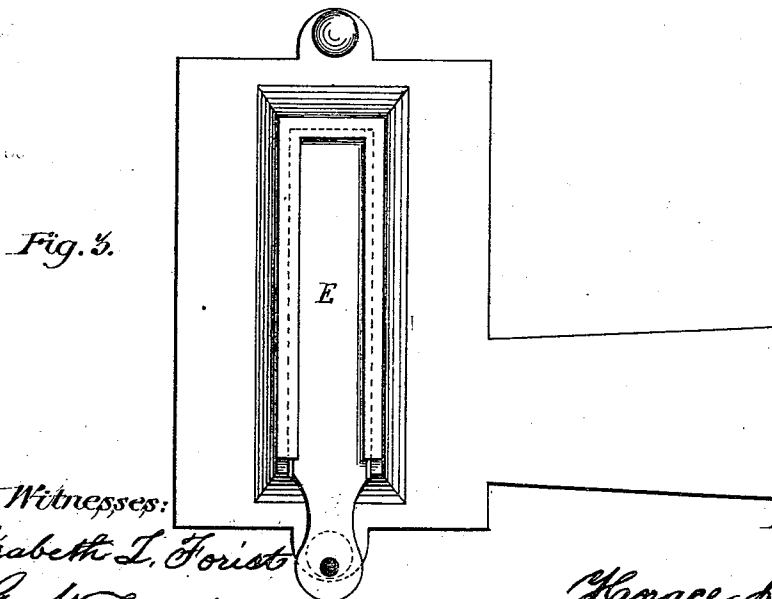
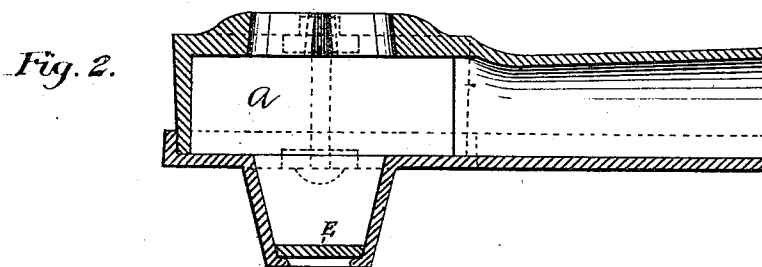
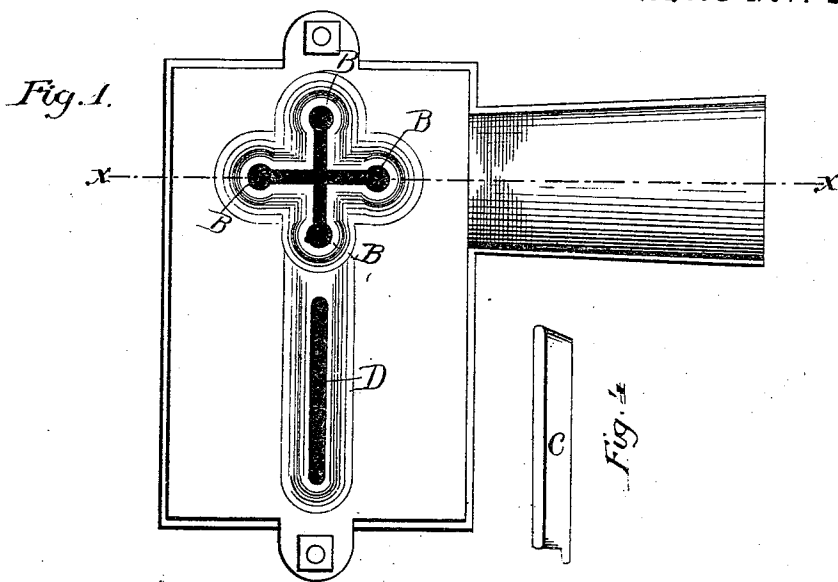


H. J. CHANDLER.

TUYERES.

No. 170,234.

Patented Nov. 23, 1875.



Witnesses:

Elizabeth L. Forist
Geo. W. Frisk

Inventor:

Horace J. Chandler

UNITED STATES PATENT OFFICE.

HORACE J. CHANDLER, OF DUMMER, ASSIGNOR OF ONE-HALF HIS RIGHT
TO MERRILL C. FORIST, OF BERLIN, NEW HAMPSHIRE.

IMPROVEMENT IN TUYERES.

Specification forming part of Letters Patent No. **170,234**, dated November 23, 1875; application filed
May 26, 1875.

To all whom it may concern :

Be it known that I, HORACE J. CHANDLER, of Dummer, in the county of Coos and State of New Hampshire, have invented certain new and useful Improvements in Tuyeres, of which the following is a specification, reference being had to the accompanying drawing, forming part thereof, in which—

Figure 1 is a top or plan view of my tuyere. Fig. 2 is a section on the line *xx* of Fig. 1; Fig. 3, a view, showing the tuyere inverted with the slide E in position; and Fig. 4, a detail view of the damper C.

The air is conducted from the chamber *a*, Fig. 2, to the fire through slots B B, Fig. 1, in an even unbroken manner.

The oval at the extreme end of the slots B B is new, is believed to be an essential improvement upon the slots in the tuyere patented to M. Powe, February 26, 1867, and is designed to exactly compensate for the additional amount of air forced through the open space at the center of the cross-slots, making an equal degree of heat upon the entire surface of the fire.

The slot D, Fig. 1, is closed with the damper C, Fig. 4, when a small fire is required. When, however, a large fire is required—as,

for example, when a large piece of metal is to be heated throughout its entire extent—the damper is removed from its slot and the fire allowed to extend across the entire top of the tuyere.

The long slot D is designed to so nearly approach the cross-slots B B that no difference in the intensity of the heat will be perceptible when both are in use.

The top of the tuyere is made convex or crowning, in virtue of which the coal-cinders can readily slide off.

The air-chamber *a* is readily cleansed from all cinders and dirt that may collect therein by means of the slide E, which, upon being withdrawn, allows the cinders to fall out.

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

A tuyere, substantially as herein described and shown, formed with the oval-ended slots B B, long slot D, damper C, and slide E, as set forth.

HORACE J. CHANDLER.

Witnesses :

E. L. FORIST,
JOHN CORBET.