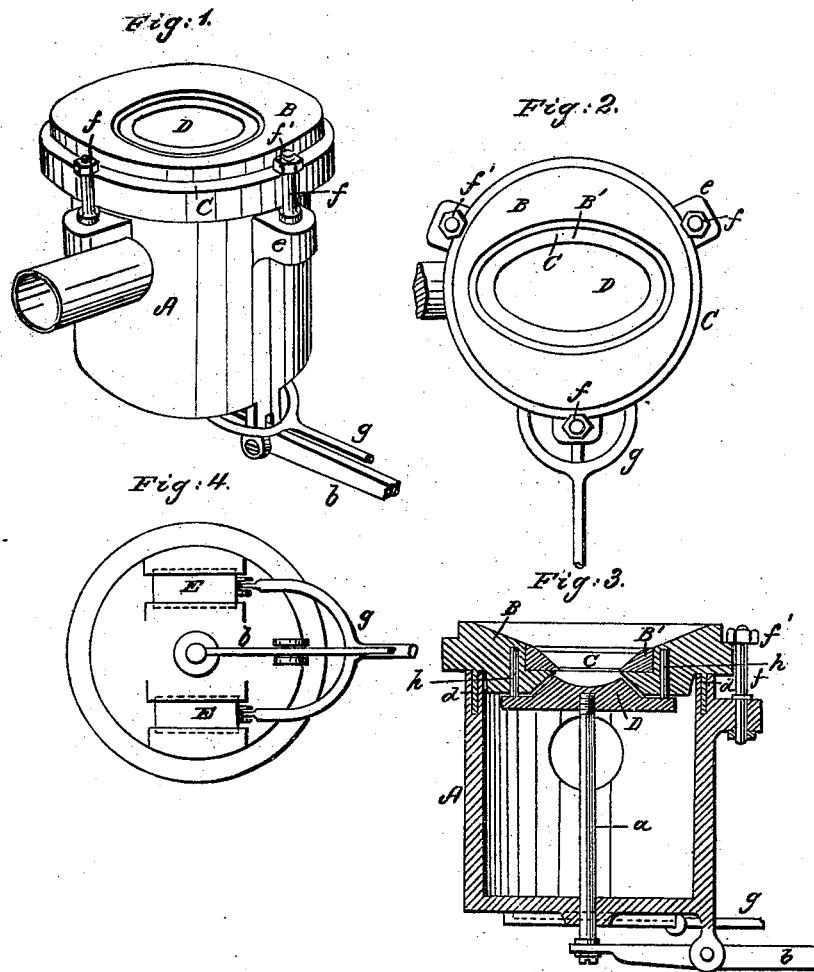


R. PLATT.

Tuyere.

No. 48,998.

Patented July 25, 1865.



Witnesses:
D. L. Reid
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Inventor.
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UNITED STATES PATENT OFFICE.

RALPH PLATT, OF FLORENCE, INDIANA.

FORGE-TUYERE.

Specification forming part of Letters Patent No. **48,998**, dated July 25, 1865.

To all whom it may concern:

Be it known that I, RALPH PLATT, of Florence, in the county of Switzerland and State of Indiana, have invented a new and useful Improvement in Tuyeres for Forges; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings and letters of reference marked thereon, forming part of this specification.

My improvement relates to an elongated orifice so constructed and arranged that the elongated opening may be rotated at will for the purpose of causing the fire to be applied along a bar or piece of metal to be heated in whatever position the same may be placed in the forge.

To enable mechanics of skill to construct and use my invention, I here give a minute description of the same, in connection with the accompanying drawings, in which—

Figure 1 represents a perspective view of my improved tuyere; Fig. 2, a plan or top view; Fig. 3, a vertical section through the center; Fig. 4, a bottom view.

Like letters indicate like parts in the different figures.

A is the body of the tuyere.

B is the top or cover, in which is an oblong opening or orifice, C.

D is a valve, supported directly under the opening C upon the standard *a*, the lower end of the latter resting upon the end of a lever, *b*, by which the proximity of the valve D to its seat and the size of the aperture for the passage of air is controlled.

The cover B is constructed with a lateral rim or flange, *c*, and an annular ring, *d*, extending down from its under side, the latter entering and nicely filling a corresponding annular space in the upper edge of the part A.

e are lugs cast or formed on the periphery of A, in which studs *f* are firmly secured. The

upper end of these studs have nuts *f'*, which screw down upon the flange *c*, retaining the cover as close as may be necessary to the part A.

B' is a bushing surrounding the opening C, and held in an appropriate space formed in the cover B, as shown plainly in Fig. 3. This part is exposed to intense heat, and when impaired thereby it may be removed and another substituted without renewing any other part of the apparatus.

E E are sliding doors, which close openings in the bottom of B. These are operated by a forked handle, *g*.

F is the blast-pipe, through which air is received from the fan or bellows.

The provision made in this tuyere for a long fire, in distinction from that which is produced by a circular orifice, enables the operator to heat a bar or piece of metal through a considerable portion of its length with comparatively little coal. When required the longer axis of the fire may be changed in its direction to suit what may be the most convenient position of the metal in the fire, the cover B, in which the oval aperture is formed, being so applied that it can be conveniently rotated for this purpose. When thus rotated the valve D is controlled by pins *h* to revolve at the same time, the standard *a* being free to revolve in the end of lever *b*.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is the following:

So constructing the tuyere that the longitudinal axis of the elongated orifice may be rotated in either direction, as and for the purpose specified.

RALPH PLATT.

Witnesses:

D. L. REID,
H. NORTON.