

L. WILKINSON.

Tuyere.

No. 54,988.

Patented May 22, 1866.

FIG. 1.

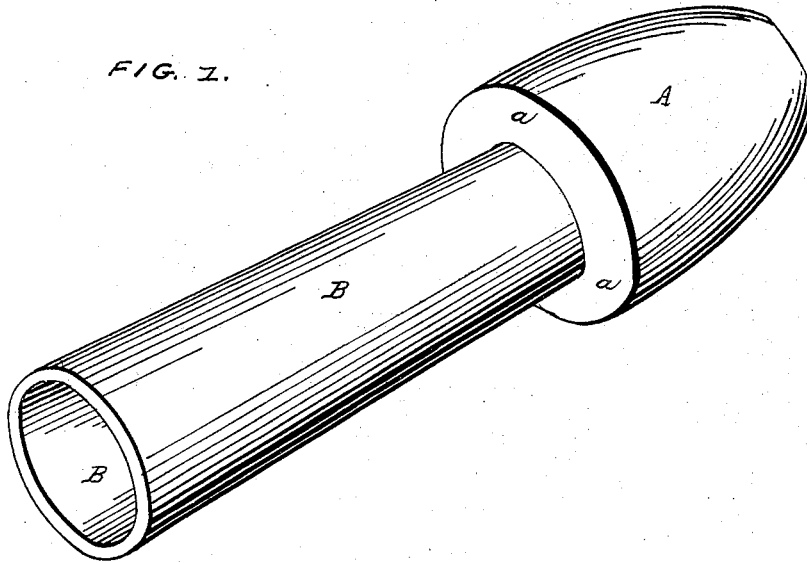
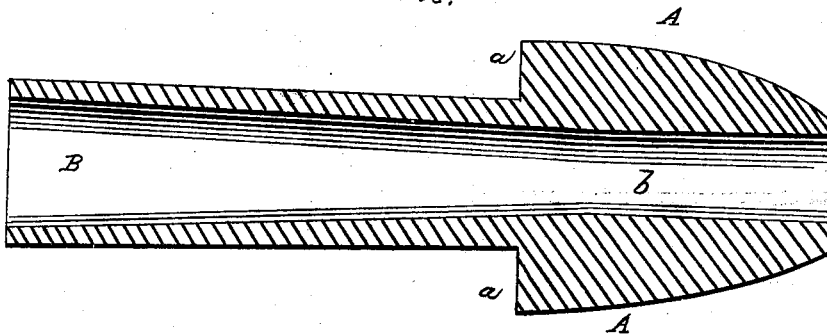


FIG. 2.



WITNESSES:

E. M. Baldwin
R. T. Fitzgerald

INVENTOR.

Levi Wilkinson.

UNITED STATES PATENT OFFICE.

LEVI WILKINSON, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN TUYERES.

Specification forming part of Letters Patent No. 54,988, dated May 22, 1866.

To all whom it may concern:

Be it known that I, LEVI WILKINSON, of the city and county of New Haven, in the State of Connecticut, have invented a new and useful Improvement in Tuyeres or Tweers for Blacksmiths' Fires; and I do hereby declare that the following is a full, clear, and exact description of the construction, character, and operation of the same, reference being had to the accompany drawings, which make part of this specification, in which—

Figure 1 is a perspective view of the tuyere complete, ready to be inserted into the forge for use. Fig. 2 is a section of the same cut longitudinally through the center.

My improvement consists in making the tuyere long enough to extend so far as to force the blast horizontally under the central part of the fire, so that it will ascend by its own levity only through the central part of the fire, and so that it will tend to spread in all directions, except downward, from the end of the tuyere, and thus equalize the force of the blast more effectually than in any other form.

I make the tuyere of cast-iron or any other suitable material, though I consider cast-iron by far the best material, as it is much less liable to be burned out, and I make it substantially of the form shown in Fig. 1, making that portion which is to be inside of the forge—that is, in or under the fire—much the largest on the outside, as shown at A, Fig. 1, and in

section, *a*, A, and A, Fig. 2, for the purpose of making it more durable, &c.

I make that part of the tube into which the bellows pipe or nozzle enters, as B, Figs. 1 and 2, of a conical or tapering form in the usual way; but I make that part which is within or under the fire with parallel sides, as shown at *b*, Fig. 2, so that the orifice will be of the same size and shape, however much of the inner end may get burned off, until the whole of the large part A has been consumed, which, from its size and situation, will be very durable.

Having made the tuyere as before described, I set it into the mason-work or wall of the fire in such a manner that the large portion A shall be entirely within or over the hearth, so that the fire may be above or around the whole of it, while the shoulder at *a a* will rest against the inner face of the wall, so that no heat from the fire will strike the smaller or conical part of the tube or pipe B, so as to burn it out or injure it in that weak part.

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

A cast-iron tuyere, when constructed, shaped, both inside and outside, and fitted for use substantially as herein described and set forth.

LEVI WILKINSON.

Witnesses:

R. FITZGERALD,
E. W. BALDWIN.