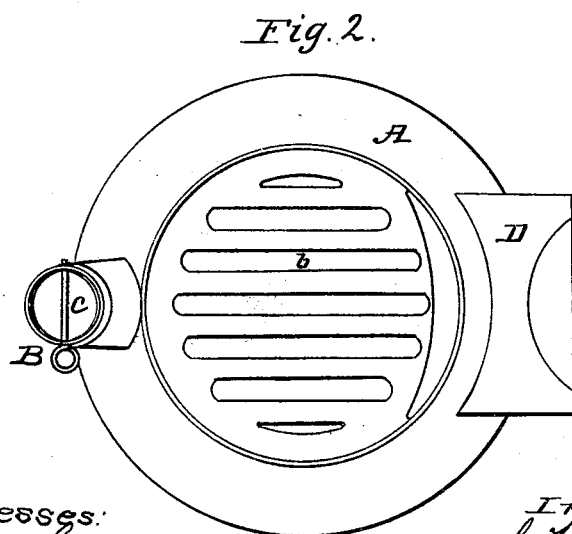
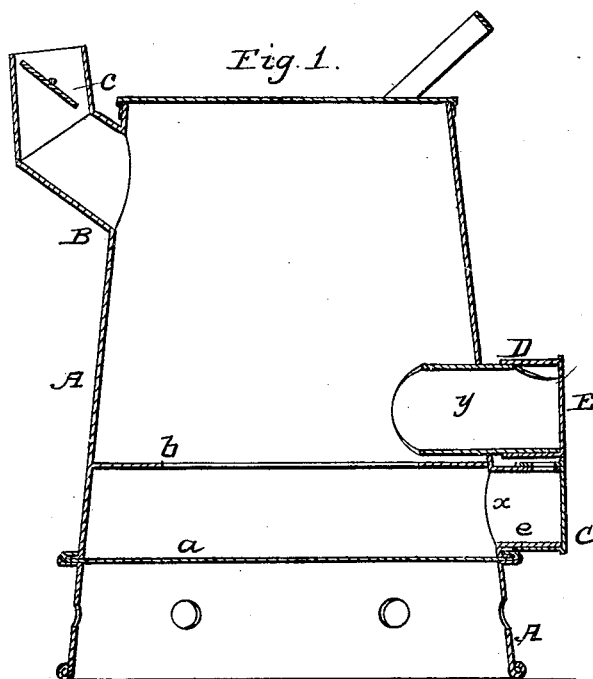


No. 53,362.

S. TIMMINS.  
Tinman's Furnace.

Patented March 20, 1866.



Witnesses:  
*Wm. Albert Steel*  
*John Parker*

Inventor:  
*S. Timmins*  
*by his attorney*  
*H. Howley*

# UNITED STATES PATENT OFFICE.

STEPHEN TIMMINS, OF PHILADELPHIA, PENNSYLVANIA.

## TINMAN'S FURNACE.

Specification forming part of Letters Patent No. 53,362, dated March 20, 1866.

*To all whom it may concern:*

Be it known that I, STEPHEN TIMMINS, of Philadelphia, Pennsylvania, have invented an Improvement in Tinmen's Furnaces; 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 to the letters of reference marked thereon.

My invention consists in the combination, with a tinman's furnace, of a tube extending through the opening in which the soldering-irons are placed and into the interior of the furnace, the burning of the casing being thus prevented, as fully described hereinafter.

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

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a vertical section of my improved tinman's furnace, and Fig. 2 a plan view with the top removed.

A is a metal casing, which tapers slightly from the base upward, and in which, a short distance above the bottom *a*, is a grate, *b*.

A pipe, B, projects from the casing near the upper end of the same, and in this pipe is a damper, *c*.

In the opposite side of the casing, below the grate *b*, is an opening, *d*, and round this opening, on the outer side of the casing, is a flange, *e*, the end of which is covered by a cap, C.

Through an opening in the casing above the opening *d*, and above the grate, projects an oblong tube, D, which extends a short distance into the interior of the casing, and onto the outer end of the tube fits a cap, E.

In the ordinary furnace used by tinmen

there is but one opening, which is directly above the bottom, the soldering-irons being introduced through this opening into the fire.

This mode of construction is objectionable, as the casing above the opening is soon burned away in consequence of the excessive heat at this point, resulting from the fire burning with the greatest intensity at the point where the air is admitted to the same.

This defect is obviated in my improved furnace by the use of the tube D, by which the air is conducted to the center, or nearly to the center, of the furnace before it is brought in contact with the fuel, the latter burning consequently with the greatest vigor at the center and but slowly at the sides, so that the casing is never heated to an injurious extent.

In the ordinary furnace, also, charcoal is the only fuel which can be used, while in a furnace provided with a grate, as above described, coke or other suitable fuel may be employed.

It will be seen that a furnace of this kind may be as readily constructed as those now in use, and at but a slight additional expense.

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

The combination, with a tinman's furnace, of a tube, D, extending through the opening in which the soldering-irons are placed into the interior of the furnace, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

STEPHEN TIMMINS.

Witnesses:

CHARLES E. FOSTER,  
JOHN WHITE.