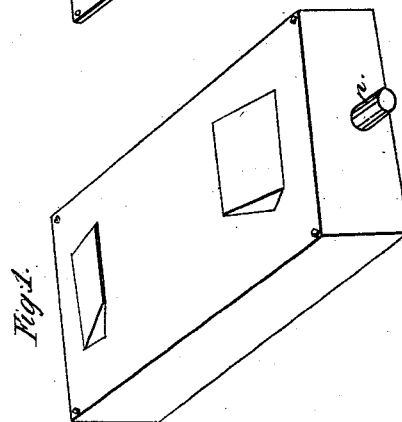
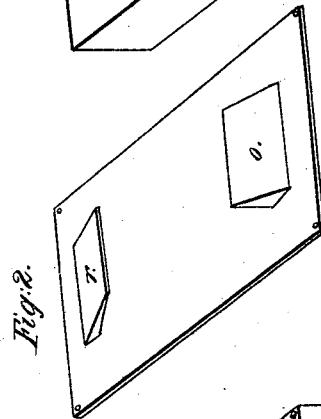
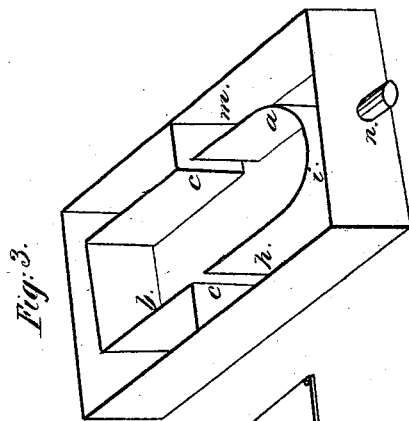


*C. Foster,*

*Tuyere,*

*N<sup>o</sup> 2,088.*

*Patented May. 11, 1841.*



*Inventor.*

*Charles Foster*

# UNITED STATES PATENT OFFICE.

CHARLES FOSTER, OF ROCHESTER, NEW YORK.

WIND-CHEST OR BELLOWS-BOX ATTACHED TO HEARTHES OR BLACKSMITHS' FORGES.

Specification of Letters Patent No. 2,088, dated May 11, 1841.

*To all whom it may concern:*

Be it known that I, CHARLES FOSTER, of the city of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in  
5 Tops or Covers of Bellows-Boxes for Blowing the Fires of Forges and Furnaces; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, refer-  
10 ence being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a view in perspective of the  
15 box. Fig. 2 is a drawing of the outside of the cover or upper part of the box, and Fig. 3 is a drawing of the interior of the box without the cover.

The nature of my invention consists in  
20 this, that I construct a bellows box inwardly so as to produce two equal currents of air, and that when air has entered the chamber in any bellows box, I conduct and bring such air to act upon the fire placed  
25 above the box by two flat or oblong tubes, standing obliquely, one leading from each end of the chamber and thus I concentrate the draft of air and make it act on the fire far more powerfully and efficiently than by  
30 any contrivance now known.

To enable others skilled in machinery to make and use said improved bellows box I will proceed to describe its construction and operation.

35 I first construct a box in size twelve by eight inches or of any desired dimensions, made of cast or sheet iron or other metal as desired. (See Fig. 1.) In this box I place partitions so that there will be an oblong  
40 chamber (*a, b*, on Fig. 3) with an opening or entrance to the same on each side, (at *c, c*,

on Fig. 3.) At one end of the box and at each side, as far back as the said openings to the chamber, is a hall or passage for the air to pass, (*h, i, m*, on Fig. 3.) At the last  
45 named end of the box a tube (*n* on Fig. 3) connected with the bellows admits air to the said passage. In the top or cover of the box directly over the said chamber are two flat or oblong tubes standing oblique with  
50 the surface of the cover and inclining each toward the other (*o* and *r* on Fig. 2) and approaching as near to each other as desired on the top having a regard to the distance it is desired the focus of the currents of air  
55 should be above the tubes.

A box like the above is placed under the fire of a forge or furnace, the coal being placed on the top of the box and over and about the flat tubes.

When a bellows is applied to the tube (*n* on Fig. 3) and made to blow, the air passes through said tube into the bellows box and then passes up through the flat tubes (*o* and  
60 *r* on Fig. 2) and with great power blows the coal lying above the tubes. The cinders naturally fall and occupy the space between the two flat tubes.

I disclaim the original invention of the bellows box, and

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

The method above described of constructing the top of the box by forming it with two oblong apertures or tubes inclined to-  
75 ward each other for the purpose of concentrating the draft of air and increasing its power of action on the fires.

CHARLES FOSTER.

Witnesses:

RICHARD TEMPLE.

MOSES CHAPIN.