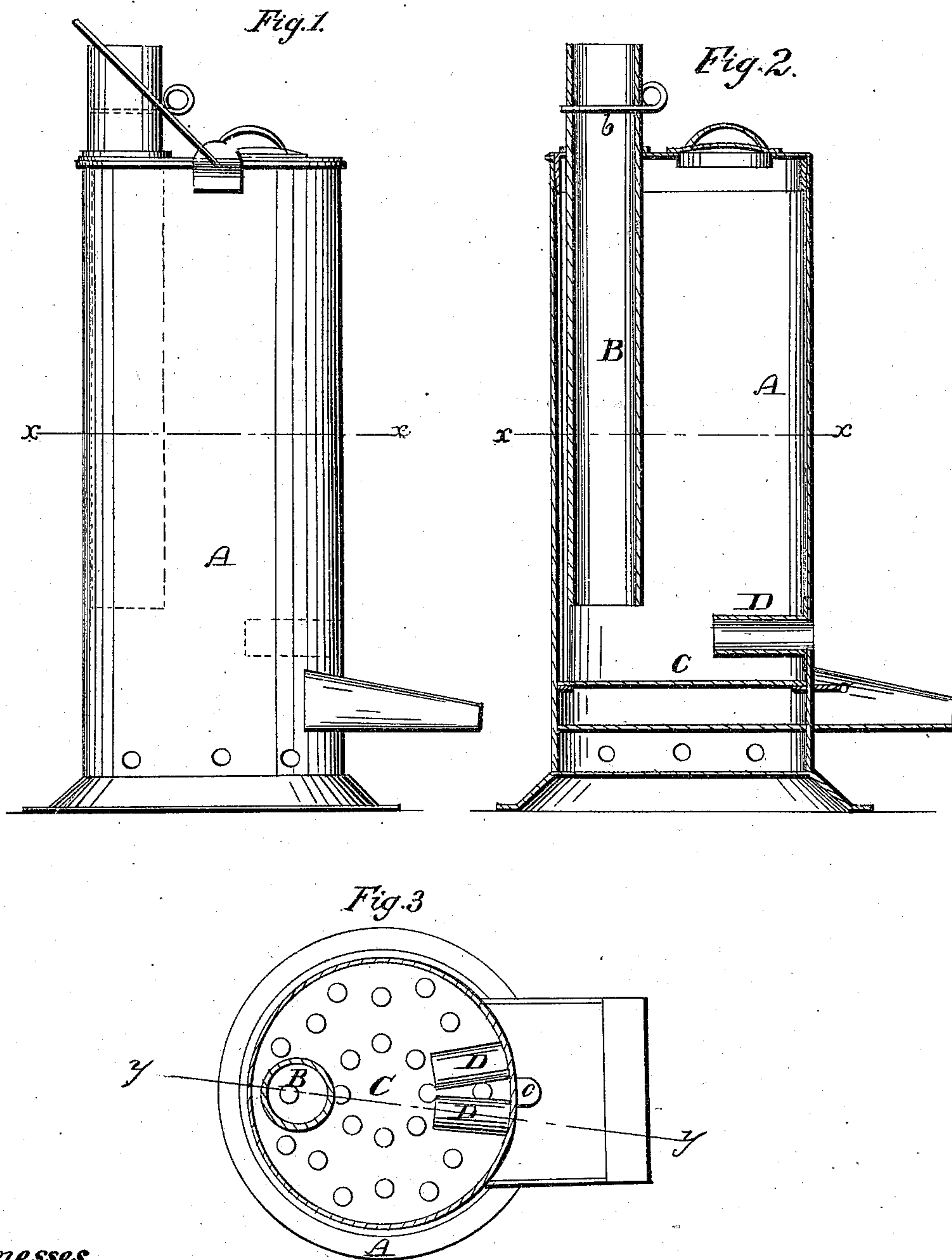


C. W. JOHNSTON.
Soldering-Iron Heater.

No. 81,644.

Patented Sept. 1, 1868.



Witnesses

H. Bruns.
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UNITED STATES PATENT OFFICE.

CHARLES W. JOHNSTON, OF NEPONSET, ILLINOIS.

IMPROVEMENT IN TINNERS' FIRE-POTS.

Specification forming part of Letters Patent No. **81,644**, dated September 1, 1868.

To all whom it may concern:

Be it known that I, CHARLES W. JOHNSTON, of Neponset, in the county of Bureau and State of Illinois, have invented a new and useful Improved Tinner's Fire-Pot; and I do hereby declare and make known that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form part of this specification.

My said invention relates to that class of fire-pots which are used by tinner's, for the purpose of heating the soldering-irons made use of in their trade; and to enable those skilled in the art to understand how to construct and use my said improvement, I will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawings, in which—

Figure 1 represents a side elevation of my invention. Fig. 2 is a vertical section of the same at the line *yy* in Fig. 3, and Fig. 3 is a plan section thereof at the line *xx* in Fig. 2.

Similar letters of reference in the several figures denote the same parts of my invention.

A represents the fire-pot, which is constructed of sheet-iron, and may be of any appropriate dimensions. B represents a chimney, which is extended down within a short distance of the grate C, as shown, which passes up through the top or cover of the pot, being secured therein by a close joint, so as to render the pot air-tight, or substantially so, except as hereinafter specified.

The said chimney may be of cast-iron, and is provided with a closely-fitting damper, *b*, as shown in the drawings.

Just above the perforated grate C, at the front of the fire-pot, are inserted two cast-iron tubes, D D, which are of suitable size to admit of the insertion of the soldering-irons, and extend in a considerable distance toward the lower end of the chimney, so that the draft

passing from the tubes D D into the chimney B will cause the combustion of fuel to take place at the place where the points of the soldering-irons lie. Beneath the grate C is an ash-pit, into which the ashes may be shook down by shaking the grate, it being provided with a projecting ear, *c*, for that purpose. Across the front of the hearth E is a bar, F, which serves as the support of the handles of the irons while being heated, while at the same time the front end of the hearth is left open, so as not to obstruct the removal of ashes from the ash-box.

The tubes D are or may be perforated, so as to afford a universal draft to the fuel, while said tubes at the same time effectually prevent the withdrawal of the fire from the pot when the irons are removed, and tend to concentrate the heat at the point desired.

The operation of my invention is as follows: The draft being all concentrated at the lower end of the chimney causes the fire to burn with intense heat at that point, while the rest of the fuel, no matter how much there may be in the pot, will not be consumed until it is shaken down, so as to come in line of the principal draft, or below the lower end of the chimney.

By turning the damper in the chimney to shut off the draft, the fire will be extinguished in a very short time.

Having described the construction and operation of my invention, I will proceed to specify what I claim and desire to secure by Letters Patent.

I claim—

The arrangement of the draft-tube B and the tool-holding tubes D in a fire-pot, A, constructed and operating substantially in the manner and for the purposes herein set forth.

CHAS. W. JOHNSTON.

Witnesses:

C. D. MORRIS,
F. C. REED.