C. Seimel,

Soldering Furnace.

No. 113,803. Patented Apr. 18, 1871.

Fig. 1.

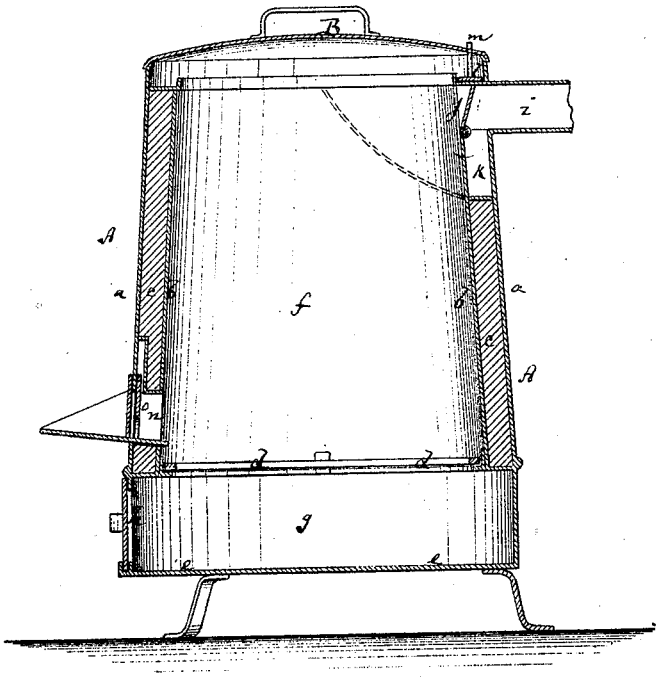
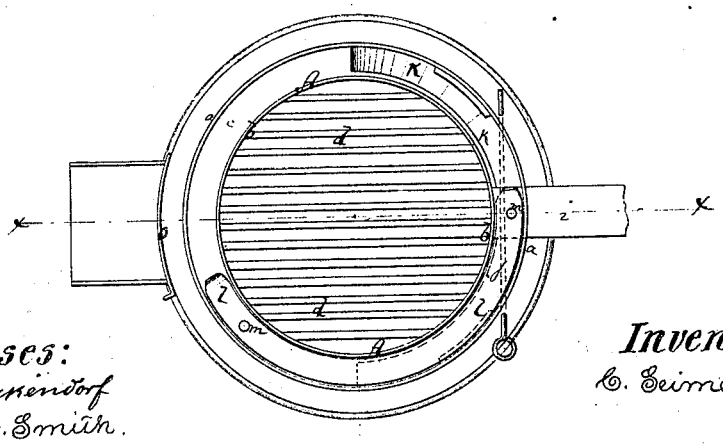


Fig. 2.



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Letters Patent No. 113,803, dated April 18, 1871.

IMPROVEMENT IN SOLDERING-FURNACES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CONRAD SEIMEL, of Green Point, in the county of Kings and State of New York, have invented a new and improved Coke-Furnace for Heating Soldering-Irons; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a vertical central section of my improved coke-furnace taken on the plane of the line *x x*, fig. 2.

Figure 2 is a plan or top view of the same, showing it without a cover.

Similar letters of reference indicate corresponding parts.

This invention has for its object to furnish a substitute for the portable charcoal-stoves now used by plumbers, roofers, and others for heating soldering-irons and similar purposes, so that in place of the expensive charcoal the cheaper coke can be employed with equal effect.

The invention consists in the arrangement of a furnace having a grate and a peculiar draught apparatus adapted to the peculiarities of coke. By enabling the use of coke in place of charcoal a very considerable outlay for fuel will be economized, and the danger of fire, so imminent with rapidly-consuming charcoal, to a great extent avoided.

A in the drawing represents the body of my improved coke-furnace. It is made of truncated, conical, or other suitable form, of sheet metal, or other material. If made of sheet metal, as shown, I prefer to make its sides, *a b*, double, and interpose cement *c* or other non-conductor of heat between the two thicknesses.

A grate, *d*, placed within the furnace, above the bottom *e* of the same, creating thereby a fire-place, *f*, above and an ash and air-chamber, *g*, below said grate.

A door or slide, *h*, for regulating the draught is applied to the lower chamber *g*.

From the upper part of the furnace projects the smoke-pipe *i*, which is provided with a damper, *j*. This damper *j* is in line with the inner lining *b*, as shown.

A portion, *k*, of the space between *a* and *b*, around the damper *j*, is not filled with cement, and is open on top, so that whenever said damper is closed to the flue *i* the said space *k* will be open to receive the smoke from above and conduct it to the flue outside of the damper. A limited draught can thus be provided, when the coke is to be left smoldering, but not hot enough for heating soldering-irons.

The space *k* can, however, also be closed from above by a horizontal slide, *l*, resting in an annular groove which is formed between *a* and *b* in the upper part of the furnace.

When the damper *j* and the slide *l* are both closed the draught is entirely interrupted.

B is the cover of the furnace, closing its upper end. This cover may have a pin or pins, *m*, project into the slide *l*, or *vice versa*, so that by turning it the slide will be moved for opening or shutting the space *k*.

In case the furnace is made of cement altogether, or otherwise of a single thickness, the space *k* is produced around the flue *i* by an extra plate of metal secured within the furnace.

An opening, *n*, is provided through the side of the furnace, and a drop-door, *o*, for closing it in front of the same.

The soldering-iron to be heated is introduced under the drop-door through the opening *n*, so that the iron will reach the fire within the furnace.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The coke-furnace A, provided with the grate *d*, damper *j*, air-space *k*, and slide *l*, all arranged and combined substantially as herein shown and described.

CONRAD SEIMEL.

Witnesses:

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