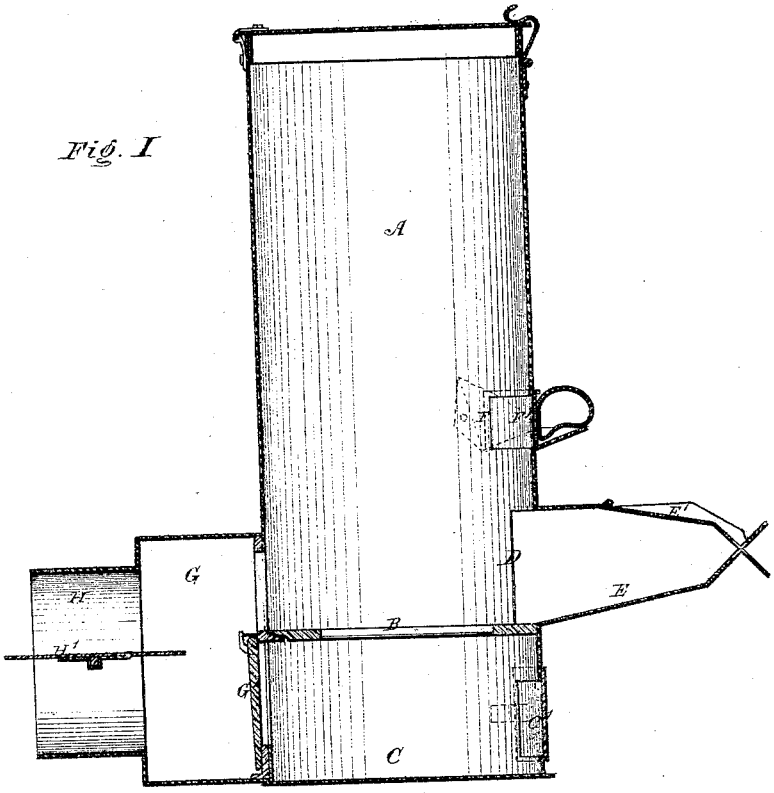
L. Boore,

Soldering Furnace.

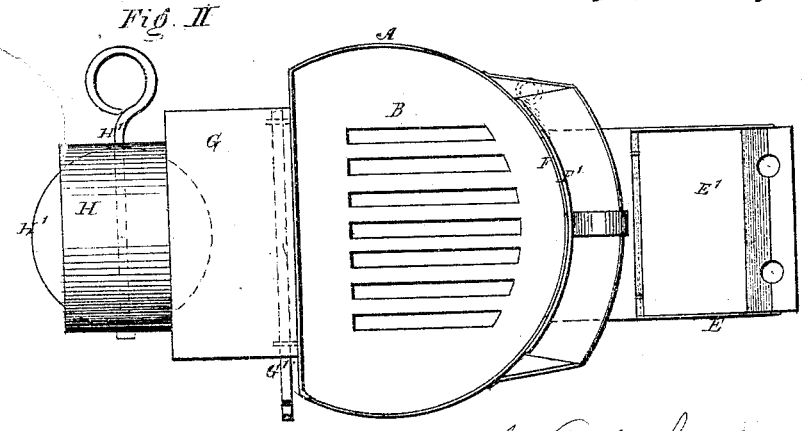
No. 45,134. Patented Nov. 22. 1864.

Fig. I



Lewis Boore ... INVENTOR.

Fig. II



W. C. Forbush
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} WITNESSES

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UNITED STATES PATENT OFFICE.

LEWIS BOORE, OF BUFFALO, NEW YORK.

IMPROVED SOLDERING-FURNACE.

Specification forming part of Letters Patent No. 45,134, dated November 22, 1864.

To all whom it may concern:

Be it known that I, LEWIS BOORE, of the city of Buffalo, county of Erie, and State of New York, have invented a certain new and Improved Soldering-Furnace; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon, in which—

Figure I is a vertical section, and Fig. II is a top plan, of my improved furnace.

The nature of this invention consists in such relative combination and arrangement of the coal-chamber, smoke-flue, grate, hearth for the irons, and draft-openings as that the air for combustion will enter the coal-chamber above the "irons" and pass downward onto the irons through the grate and into the smoke-flue, whereby several beneficial results are accomplished.

Letters of like name and kind refer to like parts in each of the figures.

A represents the coal-chamber, which is represented of a semi-cylindrical cross-section, but which may be made square or of any convenient form.

B represents the grate, forming the bottom of the coal-chamber.

C represents an ash-pit, for the reception of the ashes as they fall through the grate; C′, door to ash-pit.

D represents an opening into the coal-chamber, through which the soldering-irons are inserted. The bottom of this opening is even with the grate.

E represents a hearth projecting from the coal-chamber from around the opening D. The bottom of the hearth starts even with the grate but, inclines upward in a manner to prevent the ashes from falling out, and form a proper support for the soldering-irons.

E′ represents a hinged flap or cover to the hearth, which, when thrown up, allows the insertion of the soldering-irons, and when shut down fits closely to the shanks of the soldering-irons in a manner to prevent the entering of air into the furnace through the opening D.

F represents the draft-opening, located just above the hearth. It is provided with a damper, F′, by which the size of the opening is regulated.

G represents a chamber formed at the back of the furnace, so as to open above and below the grate.

H represents the smoke flue, leading from the chamber G.

G′ is a damper, connected to the back edge of the grate, by which the opening into the chamber G may be closed so as to cause the draft to be entirely downward through the grate; but when starting the fire and a more direct draft is desired it may be left open; H′, damper in smoke-flue.

In consequence of the draft being downward the coal in the chamber A cannot become ignited above the draft-opening F, while that below the draft-opening and on the irons will be all aglow. The body of coal in the chamber above acts as a constant feeder by its own weight as the ignited coals are reduced to ashes. The fire is thus made to maintain and give a very uniform and constant heat, with little or no trouble to the user.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The relative arrrangement and combinatio of the coal-chamber A, draft-opening F, heart E for the soldering-irons, and smoke-flue H as that the air for combustion will enter above and draw down onto the soldering-irons, for the purposes and substatially as described.

LEWIS BOORE.

Witnesses:

W. H. FORBUSH,

B. H. MUEHLE.