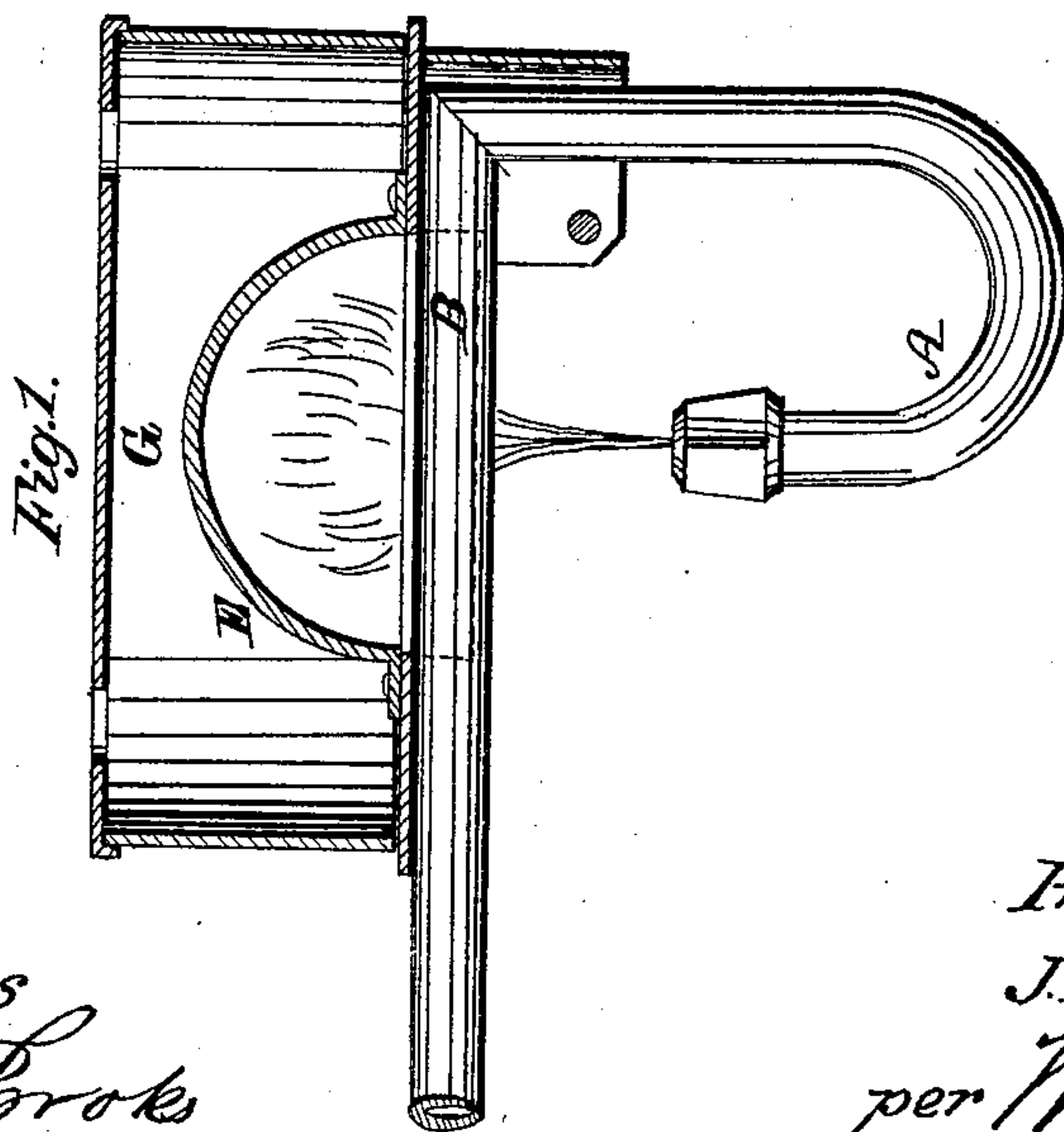
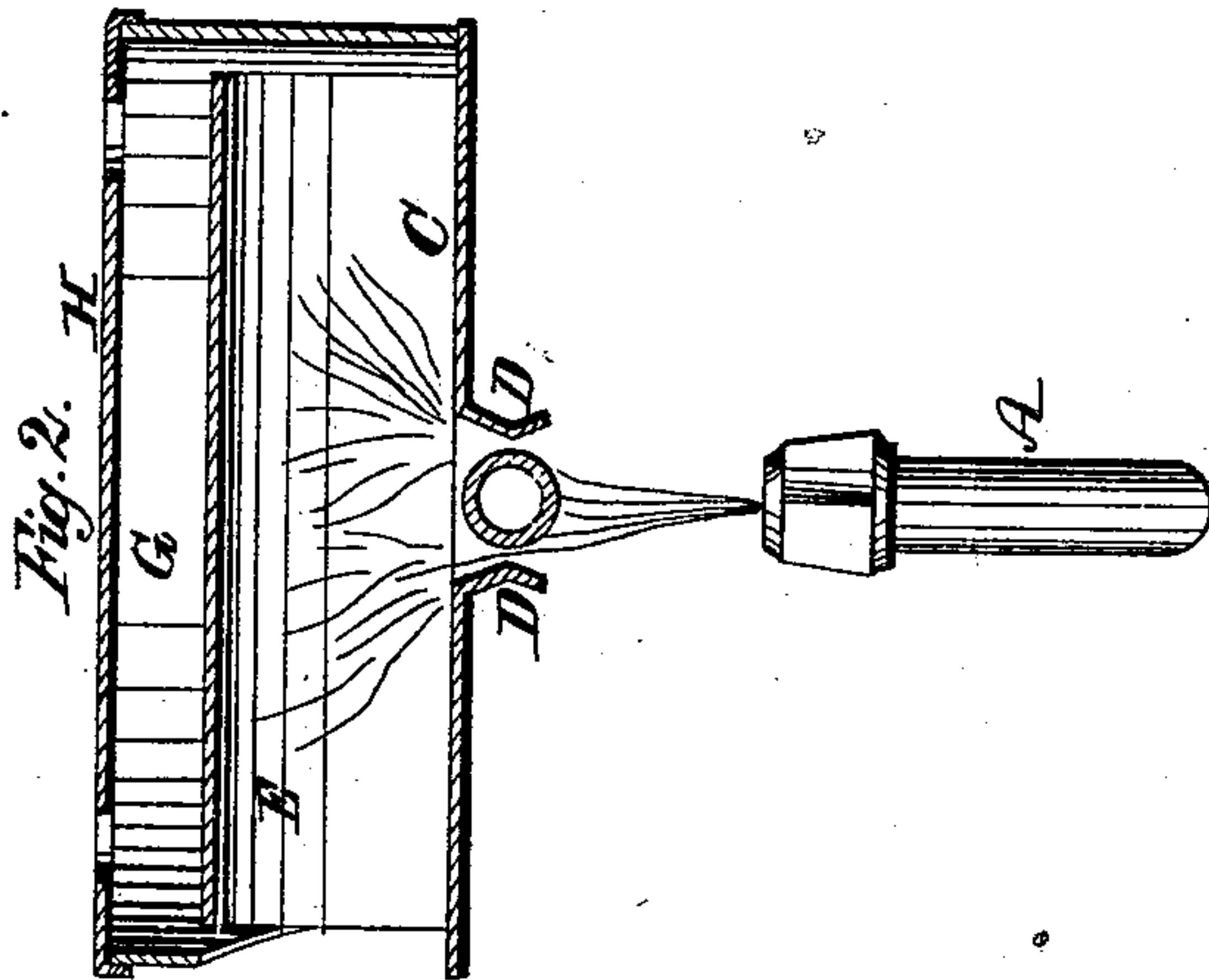


J. BURGESS.
Soldering Furnace.

No. 90,724.

Patented June 1, 1869.



Witnesses
John K. Brooks
J. Armstrong & Co.

Inventor.
J. Burgess
per *Wm. H. Co.*
Attorneys.

UNITED STATES PATENT OFFICE.

JOSIAH BURGESS, OF ZANESVILLE, OHIO.

IMPROVEMENT IN PORTABLE SOLDERING-FURNACE.

Specification forming part of Letters Patent No. 90,724, dated June 1, 1869.

To all whom it may concern:

Be it known that I, JOSIAH BURGESS, of Zanesville, in the county of Muskingum and State of Ohio, have invented a new and Improved Soldering-Iron Heater; 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 drawings, forming part of this specification.

This invention relates to improvements in furnaces for heating soldering-irons, designed to provide an apparatus for the employment of naphtha and other products of petroleum-oil for generating the heat.

The invention consists in the construction of the furnace hereinafter described, adapted to be used in combination with the naphtha-burner, for the purpose of heating soldering-irons.

Figure 1 represents a longitudinal sectional elevation of my improved apparatus, and Fig. 2 represents a transverse section of the same.

Similar letters of reference indicate corresponding parts.

A represents a burner for naphtha or other products of crude petroleum, such as now in common use.

To the longitudinal tube B of the burner I secure the base C of a soldering-iron furnace, preferably of a circular form. The said base is provided with an opening along the tube, each way from the point above the burner, designed to admit the flame after impinging upon the tube; and projecting downward from the said opening are two lips, D, for preventing the spreading of the flame.

After passing above the base C the flame

encounters a curved hood, E, running transversely of the base from an opening, F, in the vertical wall of the furnace. This hood spreads the flame in each direction, and imparts to it the proper shape to envelop the whole length of the soldering-iron, which is inserted at the opening F.

From the hood the flame passes off at each end into a space, G, inclosed by the vertical walls and the top H, whereby the heat is prevented, to a great extent, from escaping from the hood or heating-space. From the space G the products of combustion pass off through holes in the top H.

By the employment of fuel of this character the volume of flame and heat may be regulated to such a degree that the irons may not be heated too much, as is now the case when using coal, whereby the tin is burned off the iron. Moreover, the vapor of water carried up into the flame from the reservoir, always used with these burners, makes a soft and pleasant heat, and the noxious vapor arising from charcoal is avoided. The flame may always be shut down or off entirely, when required, for economy.

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

The soldering-furnace constructed, as described, of the case C, having its slotted bottom provided with lips D, the hood E, and the perforated top H, arranged with the burner A and tube B, as herein set forth, for the purpose specified.

JOSIAH BURGESS.

Witnesses:

JOHN W. KING,
REUBEN H. MORGAN.