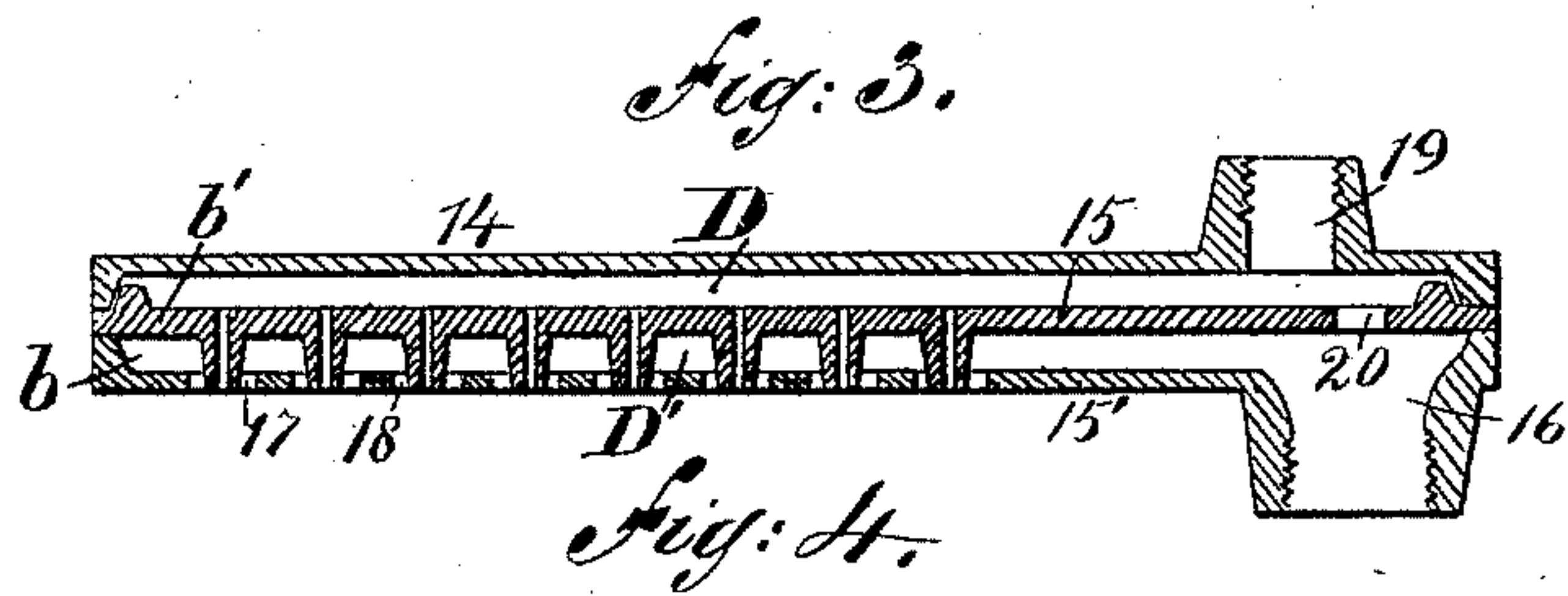
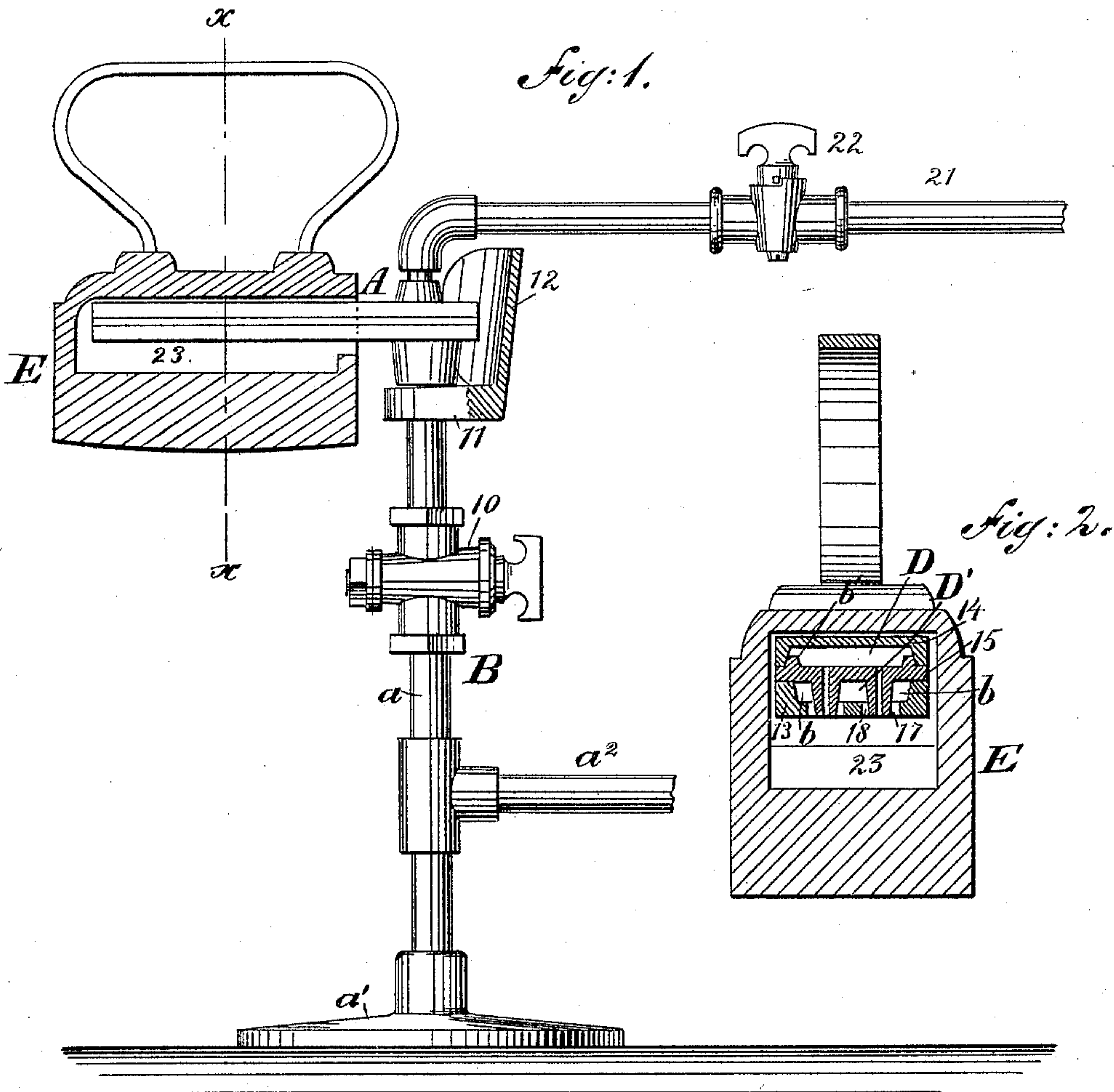


(No Model.)

W. HESS, Jr.
FLAT IRON AND HEATER THEREFOR.

No. 462,131.

Patented Oct. 27, 1891.



WITNESSES:

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WENDELL HESS, JR., OF TROY, NEW YORK.

FLAT-IRON AND HEATER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 462,131, dated October 27, 1891.

Application filed February 25, 1891: Serial No. 382,727. (No model.)

To all whom it may concern:

Be it known that I, WENDELL HESS, Jr., of Troy, in the county of Rensselaer and State of New York, have invented new and Improved Flat-Irons and Heaters Therefor, of which the following is a full, clear, and exact description.

My invention relates to an improved flat-iron and a heater therefor, and has for its object to provide a heater capable of producing an intense and uniform heat in a short space of time, and also to provide an iron especially adapted for use in connection with the burner, the iron being constructed in such manner as to retain a maximum amount of heat.

A further object of the invention is to provide a means whereby a decided economy in fuel will be obtained and the iron constantly maintained in a clean and perfect condition.

The invention consists in the novel construction of the heater and iron and in the combination thereof, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the stand and heater, the flat-iron being in vertical section. Fig. 2 is a transverse section through the iron and heater, the section being taken on the line $x x$ of Fig. 1. Fig. 3 is a longitudinal section through the heater, and Fig. 4 is a bottom plan view thereof.

The heater A is constructed upon a stand B, comprising a tubular standard a and a base a' , attached to the standard. The tubular standard a is connected with a pipe a^2 , through the medium of which air is introduced into said standard, and above the connection of the pipe a^2 with the standard a stop-cock 10 is placed in the latter, the stop-cock being located between the upper end of the standard and the connecting pipe a^2 .

The standard a is provided with a cap-block 11 at its upper end, the said cap plate or block having integral therewith an upwardly-extending shield 12. Upon the cap-plate the inner end of the burner A rests. The burner is of peculiar construction and comprises three sections—a bottom section 13, an upper sec-

tion 14, and an intermediate section 15. The bottom section 13 is dished upon its inner face, as illustrated at b in Figs. 2 and 3, and at one end the said bottom section is provided with an integral collar surrounding an opening 16 in the plate. The burner is attached to the standard a by means of a thimble or equivalent fitting screwed into the collar and into the end of the standard, surrounded by the cap-plate 11. The intermediate plate 15 is provided with a series of outwardly-extending tubular nipples 17, which nipples extend downward through apertures 18 in the bottom plate flush with the outer face of the latter plate, or nearly so, as is best shown in Figs. 2 and 3. The upper face of the intermediate plate 15 is provided with a dished surface b' , and the top plate 14 is provided with a similar surface upon its under face and with an annular flange or collar surrounding an opening 19, produced in one end of the plate, the said opening being nearly over the opening 16 in the lower plate. By reason of the dished surfaces of the upper, lower, and intermediate plates chambers D and D' are formed in the burner, which chambers are connected by producing an opening 20 in the intermediate plate 15 between the openings 16 and 19 in the upper and lower plates.

The gas-supply tube or pipe 21 is provided with a stop-cock 22, and the said pipe is connected with the chamber D of the burner, preferably through the medium of the flanged opening 19, leading into said chamber. Air enters the tubular standard a through the pipe a^2 , and thence passes into the lower chamber D' of the burner and commingles with the gas at the nipples 17, thus materially promoting combustion, and another portion of air passes up through the opening 20 in the burner and commingles with the gas in the upper or mixing chamber D. The burner is held in a horizontal position, as shown in Fig. 1, and the iron E is provided with an interior chamber 23, into which chamber the heater is adapted to be introduced. The chamber is open at one end of the iron only, and the iron is heated by causing the heater to enter the chamber 23, whereupon the iron is supported as it rests upon the upper face of the heater, and the gas-jets burning at the bottom face of the heater uniformly, thoroughly,

and expeditiously impart a proper degree of heat to the smoothing-face of the iron. It will be observed that as there is but one opening to the chamber 23 of the iron it will retain the heat for a maximum length of time, and the irons are quickly heated by reason that but a small portion of the heat can escape from the chamber while the iron is in position upon the heater.

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

1. A burner comprising two parallel chambers having a gas and air inlet, respectively, at the same end of the burner, an aperture 20 through the dividing-wall of the two chambers, between the two inlet-openings, and a series of nipples leading from the gas-chamber through openings of greater diameter in the outer wall of the air-chamber, substantially as shown and described.

2. A burner comprising the plates 13 14, each having a marginal flange on its inner side and openings 16 19 at the same end, a series of openings 18 in the plate 13, and the middle plate 15, held between the adjacent edges of the said flanges and having a series of nipples 17, projecting through said openings 18, and an opening 20 through the mid-

dle plate between said openings 16 19, substantially as shown and described.

3. A sad-iron heater comprising a base, a vertical tubular standard mounted thereon, an air-inlet pipe a^2 , coupled to the standard, a horizontal burner mounted at its inner end on the upper end of the standard and having two chambers, the lower one at its inner end receiving air from the standard, a gas-pipe leading into the corresponding end of the upper chamber, an opening 20, connecting the two chambers between their gas and air inlets, and a series of nipples projecting from the gas-chamber through a series of larger air-openings in the outer wall of the air-chambers, substantially as shown and described.

4. The combination, with a burner having two communicating chambers and provided with inlet-openings on opposite sides, of a tubular standard provided with a cap-block having an upwardly-extending shield, an air-pipe connected to the tubular standard, and a gas-pipe connected to the burner on the side opposite to the tubular standard, substantially as herein shown and described.

WENDELL HESS, JR.

Witnesses:

ANTHONY P. FINDER,
JAMES FARRELL.