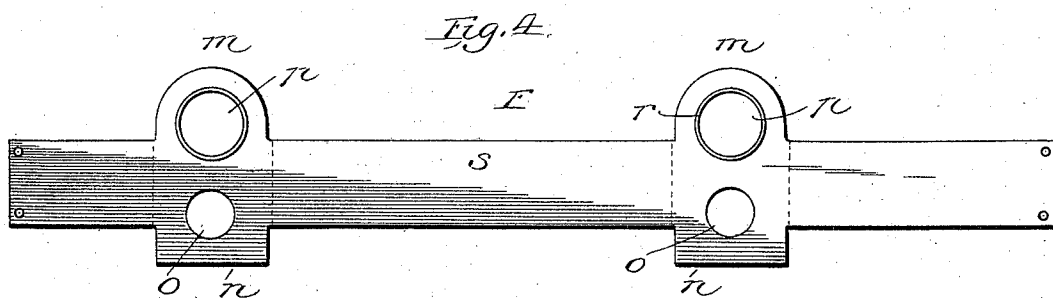
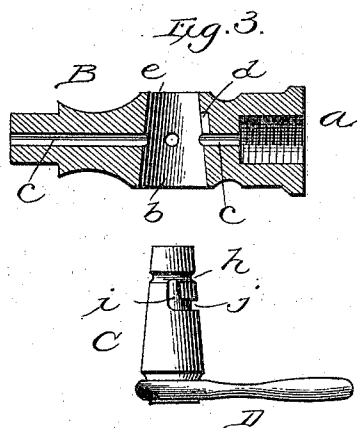
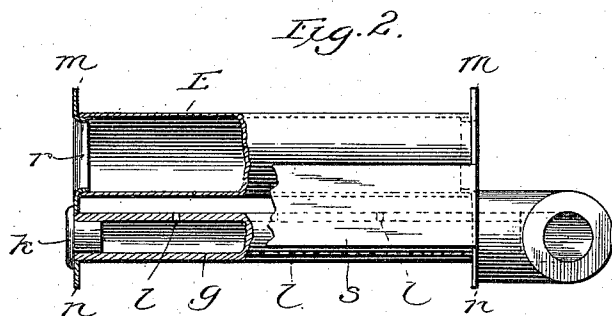
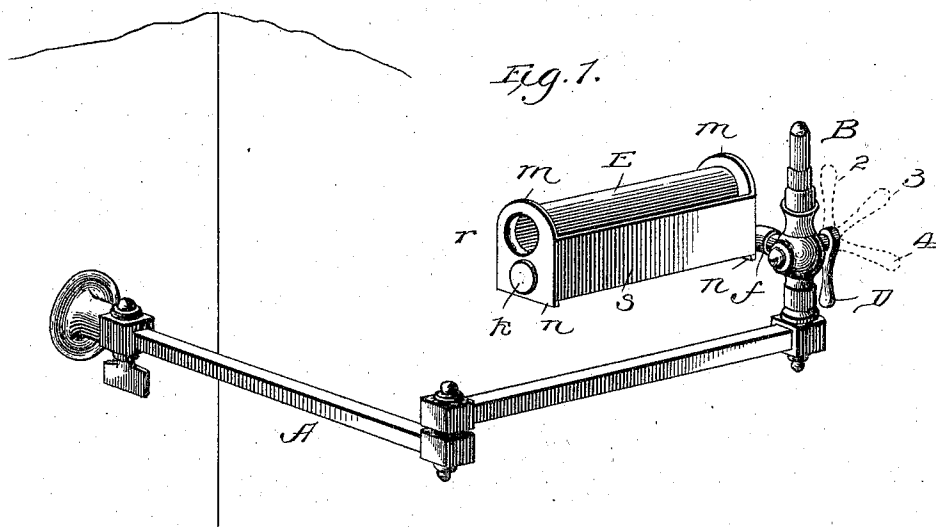


(No Model.)

F. K. BARNHART.
HEATER FOR CURLING TONGS OR IRONS.

No. 576,423.

Patented Feb. 2, 1897.



WITNESSES:

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FREDERICK K. BARNHART, OF OSWEGO, NEW YORK.

HEATER FOR CURLING TONGS OR IRONS.

SPECIFICATION forming part of Letters Patent No. 576,423, dated February 2, 1897.

Application filed March 9, 1896. Serial No. 582,421. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK K. BARNHART, a citizen of the Dominion of Canada, a permanent resident of the United States, residing at Oswego, in the county of Oswego and State of New York, have invented certain new and useful Improvements in Heaters for Curling Tongs or Irons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates generally to heating devices for curling tongs or irons, and particularly to that type of such devices which are adapted to be directly attached to the ordinary gas fixture or bracket usually found in bedrooms and bath-rooms of dwellings; and it has for its object to provide a simple, durable, cleanly, and comparatively inexpensive device of the character named which is adapted to be used without interference with the use of the burner to which it is affixed as an illuminating-burner simultaneously therewith; and it consists in providing a peculiarly-constructed illuminating-gas burner adapted for connection with any gas-fixture, and to so control the flow of gas as to enable its use either for illuminating or heating purposes, or for both purposes at one and the same time; and also it further consists in providing a novel heating device whereby the tongs may be thoroughly heated without any liability to soiling the same with soot or other products of combustion and at the same time providing for the more perfect combustion of the gas, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of my improved device attached to a gas-fixture in position for use; Fig. 2, a side elevation, partly in section, of the heating-oven and its attachments; Fig. 3, a central longitudinal sectional view of the gas-burner and a side elevation of the valve or plug therefor, and Fig. 4 a detail view of the flame-shield and oven-supporting frame. Similar letters and numerals refer to similar parts throughout the several views.

A represents an ordinary swinging gas fix-

ture or bracket provided with a stop-cock from which the burner has been removed and my improved burner B with oven attachment substituted. The burner, as clearly shown in Fig. 3, is formed with a tap-hole *a*, adapting it for connection with any of the ordinary gas-fixtures, and is provided with a valve or plug C, so as to control the flow of gas there-through and direct it either to the burner-tip and the heating device, or to either of them, or to cut it off completely from both the burner-tip and heating device, as desired, thus enabling the use of the gas for illuminating and heating purposes at the same time or for either purpose separately. In order to secure the result named, I form the burner B with an enlarged transverse opening *b*, which intersects the channel or aperture *c*, through which the gas flows from the fixture, and in that wall of the opening *b*, next the tap-hole *a* of the burner, is formed a short groove *d*, extending lengthwise of the opening and communicating with or terminating in the aperture *c*, as clearly shown in Fig. 3. The wall of the opening *b* is also apertured, as at *e*, at right angles to and in the same plane as the aperture *c*, which aperture *e* communicates with an elbow pipe or tube *f*, which is connected to the burner-tube *g* of the oven.

As shown, the opening *b* is tapering or conical in shape, and a similar-shaped valve or plug C is fitted therein; but the shape of both the opening and plug may be cylindrical, if desired.

The plug C is formed with a groove *h*, which encircles the same near one end, and a short groove *i* extends from said circular groove *h* lengthwise the plug and terminates in a groove *j*, which extends therefrom at right angles, partly around, about one-fourth, the circumference of the plug. When the plug is in its proper position in the opening *b* of the burner, the circular groove *h* thereof is at all times in line with the longitudinal groove *d* in the wall of the opening *b*, and said groove *d*, terminating in aperture *c*, is in direct communication with the supply of gas through the fixture or bracket, and said grooves, as well as grooves *i* and *j*, are therefore constantly filled with gas.

The plug or valve C is provided with a pendent handle D, by which it may be turned

to permit of the flow of gas, and which indicates by its position whether the gas is flowing to the burner or to the heater, or to both, or whether it is cut off from both. Thus with the handle turned to the position indicated in full lines the gas is completely cut off, while the dotted handle 2 indicates that the valve is turned so that the groove *j* is in communication with the aperture *c* and the flow of gas is to the burner-tip, and the dotted handle 3 that the groove *j* is in communication with both the apertures *c* and *e* and the flow is to both the burner-tube *g* of the oven and the burner-tip for illuminating purposes, and dotted handle 4 that said groove *j* is in communication with aperture *e* alone and merely the burner-tube *g* is in communication with the supply-pipe.

The burner-tube *g* is closed or sealed at one end by a plug or cap *k*, and any desired or suitable number of orifices or jet-openings *l* are formed through the upper portion thereof, and the other end of said tube is connected with the elbow-pipe *f*, which is fitted to the burner B on or over the aperture *e* therein in any desired or suitable manner, so as to support said tube *g* in a horizontal plane and, preferably, parallel to the arm of the gas-fixture to which the device is attached.

Directly above the burner-tube *g* the oven E is supported (said oven in this instance being cylindrical, although it may be of any preferred shape) by means of a frame consisting of side and end pieces formed from a single strip or sheet of metal F, which is, as shown in Fig. 4, formed with lugs or ears *m* and *n* opposite each other, which portions of the sheet form the ends of the frame and partly in which and partly in the body of the sheet are formed the openings or perforations *o* and *p*, the latter having flanges *r* formed therein. To make the frame, the sheet or strip F is bent at right angles at the points indicated by dotted lines thereon and its ends riveted or otherwise secured together, thus forming a rectangular frame.

The ends of the burner-tube *g* are inserted in the openings *o* and support the frame in place, and the ends of the oven are fitted over the flanges *r* of the openings *p* and are supported thereon. The side pieces of the frame form shields *s* for the flames or jets from the burner-tube and serve to direct the same around the oven, so as to cause the full benefit of the heat therefrom to be imparted to the oven, and also to cause a draft of air to insure perfect combustion of the gas.

The tongs or curling-iron to be heated is inserted in the end of the oven and permitted to rest therein till sufficiently heated, and while heating therein is removed from all liability of being soiled through soot from the flame, and it is also more uniformly heated than it could be if exposed directly to the flame of a single jet, as is the common way of heating curling-irons.

The groove *d* is shown as an open channel or elongated recess in the wall of the opening *b*, but it is evident that a tubular opening or perforation having its outlet at one end in opening *b*, to communicate with groove *h* of the plug, and at the other end in aperture *c* would serve the same purpose equally well.

It is obvious that the connection between the burner-tube *g* and the burner B may be made by means of an S-shaped joint instead of the elbow-pipe *f*, or that the burner-tube itself may be continued and bent to connect with burner B, or that the burner-tube may be closed or sealed at both ends and the connecting pipe or elbow from burner B be connected centrally of said burner-tube at the side thereof without a departure from the scope or spirit of my invention. Also while the oven is illustrated in Fig. 1 at the right-hand side of burner B it is evident that it may be attached or arranged at any other side thereof.

The invention is illustrated in connection with an ordinary swinging gas-bracket having a stop-cock adjacent the wall from which it extends, as showing its adaptability to such brackets, but the stop-cock referred to and shown is superfluous, as the valve or plug C of my improved burner serves identically the same purpose as said stop-cock.

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

1. The combination, in a heater for curling tongs or irons, of a burner-tube having jet-orifices, an oven adapted to exclude the flames from its interior, a frame for said oven supported by said burner-tube, and side shields supported by said frame for directing the flames onto the exterior of said oven, substantially as described.

2. The combination, with a heater for curling tongs or irons, of an illuminating-gas burner having an opening intersecting the gas-aperture therein, an aperture formed through the wall of said opening, a plug or valve formed with a groove encircling it near one end, a groove extending partly around said plug, a groove connecting said circumferential grooves, and a channel for connecting the gas-aperture and the circular groove formed in the wall of the transverse opening, substantially as described.

3. The combination, in a heater for curling tongs or irons, of a burner-tube formed with jet-orifices, an oven, and a frame for supporting the oven from the burner-tube consisting of end pieces adapted for connecting the oven and the tube, and side shields for the jet-orifices connecting said end pieces, substantially as described.

4. The combination, in a heater for curling tongs or irons, of a burner-tube formed with jet-orifices, an oven, and a frame, for supporting said oven from said burner-tube, consisting of a single sheet of metal bent to form

side shields for said jet-orifices and end supports for said oven, substantially as described.

5 5. The combination, in a heater for curling tongs or irons, of a burner-tube formed with jet-orifices, an oven, and a frame consisting of a single sheet of metal bent to form the end pieces of the frame and side shields for the jet-orifices, and having openings in the end pieces for the burner-tube, and openings

flanged to receive the ends of the oven there- 10 over, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK K. BARNHART.

Witnesses:

GEORGE T. CLARK,
THOS. P. CLANCY.