

D. N. GLEASON & A. A. BOWLER.

GAS-STOVE.

No. 173,940.

Patented Feb. 22, 1876.

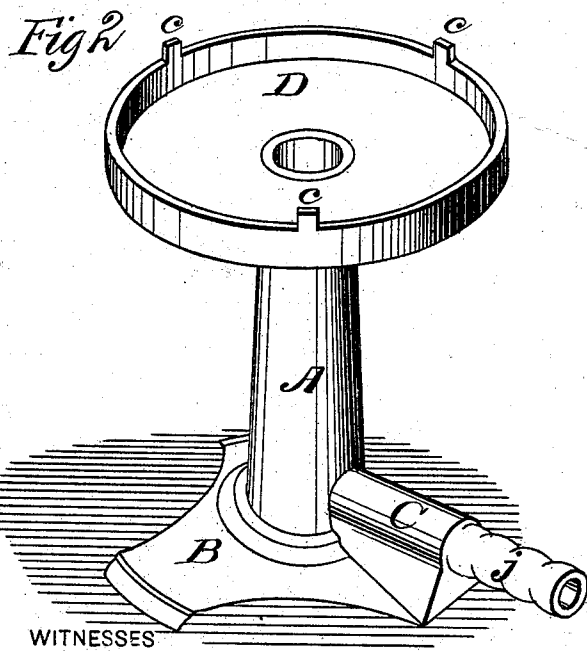
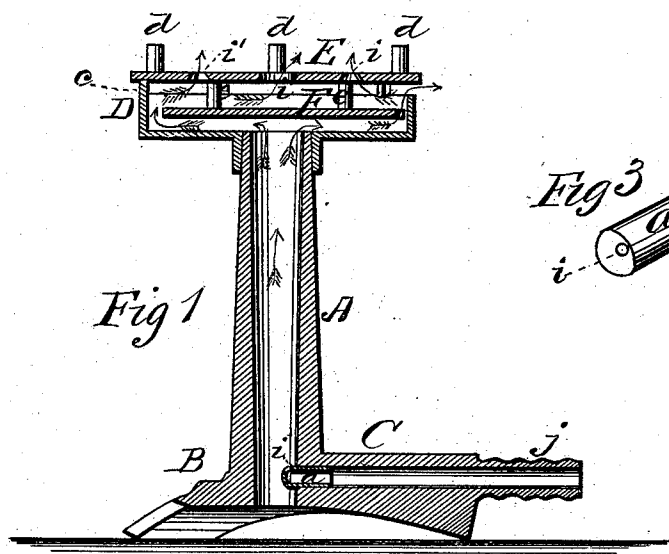
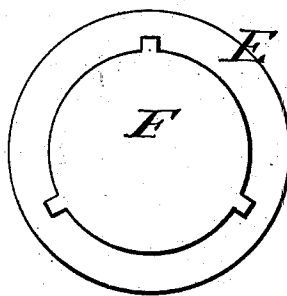


Fig 4



WITNESSES

Robert Smith
E. H. Bates

INVENTORS

D. N. Gleason
A. A. Bowler
Chipman & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

DUANE N. GLEASON AND ALBERT A. BOWLER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN GAS-STOVES.

Specification forming part of Letters Patent No. **173,940**, dated February 22, 1876; application filed December 4, 1875.

To all whom it may concern :

Be it known that we, DUANE N. GLEASON and ALBERT A. BOWLER, of Brooklyn, in the county of Kings and State of New York, have invented a new and valuable Improvement in Gas-Stoves; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical central section of our heater, and Fig. 2 is a perspective view thereof. Figs. 3 and 4 are detail views.

This invention has relation to improvements in atmospheric heaters which are adapted to be used either for raising the temperature of the interior of buildings or apartments, or for culinary purposes; and the nature of the invention consists in a certain novel construction of a burner, whereby the flame, produced as above described, will be spread over a broad surface without losing any of its heating properties, and without direct contact with the exterior air, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates an upright metallic tube, the lower end of which is open, and is secured into a stand, B, by means of which it is held in an upright position. The bore of this tube gradually enlarges upward, and it is provided with an elbow, C, the outer end, *j*, of which is serrated or grooved for the purpose of holding a flexible tube thereon, through which gas is introduced into the heater-tube A. Pipe C opens into tube A slightly above its open lower end, and is provided at its inner end with a metallic tip, *a*, having in its end an aperture, *i*, through which the gas is admitted into the bore of the tube A. When gas is let on, it will ascend tube A, and, if flame be applied, will take fire, thereby creating an upward draft, which will cause a current of atmospheric air to be drawn up, and produce the well-known unilluminating hydrogen flame. The opening for the admission of air being below that for the admission of gas, not a single atom of the latter will es-

cape into the room after the lighting, as the upward draft will convey it to the upper end of the pipe A, where it will be consumed. When the bottom of the upright pipe is closed, and the openings for the admission of air above that for the admission of gas, a certain quantity of the latter will escape both before and after the lighting of the gas, sufficient to vitiate the air of a room or building. The upper end of tube A is provided with a metallic cup, D, of suitable depth upon the edges of which are formed studs or projections *c*, which are designed to hold a perforated metallic disk, E, free from the upper edges of the said cup, as shown in Fig. 1. Disk E is provided upon its upper surface with a number of spaced uprights, *d*, the function of which is to hold a culinary vessel free from the said plate, so that jets of flame may be projected from the openings *v* in the said disk against the bottom of the vessel. It is also provided upon its under side with a spaced deflecting-plate, F, rigidly connected to the said disk by means of metal rods *e*, the said rods being of such a length as to allow of a space between the plate and bottom of the cap, as shown in Fig. 1. This plate being of less diameter than cup D, and being concentric therewith, a passage is formed between its edges and the vertical walls of the said cup, thereby forming a communication between the spaces above and below the said plate, and allowing the hydrogen compound gas to flow freely around the plate, out of the perforations in disk E, and around its edges, as shown by the arrows in Fig. 1.

What we claim as new, and desire to secure by Letters Patent, is—

In combination with the upright tube A, having cup D with projections *c*, the perforated plate E, having spaced disk F, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

DUANE N. GLEASON.
ALBERT A. BOWLER.

Witnesses:

SAMUEL G. DARE,
FRANCIS BILLINGHAM.