

(No Model.)

3 Sheets—Sheet 1.

C. L. BISBEE.
GAS STOVE.

No. 347,561.

Patented Aug. 17, 1886.

Fig. 1.

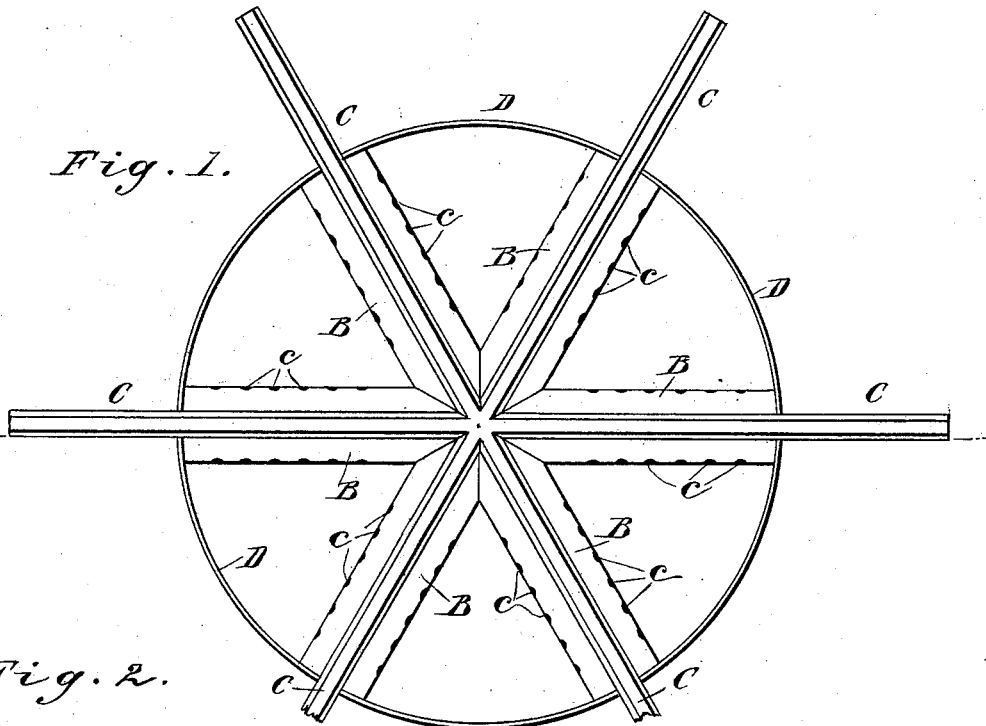
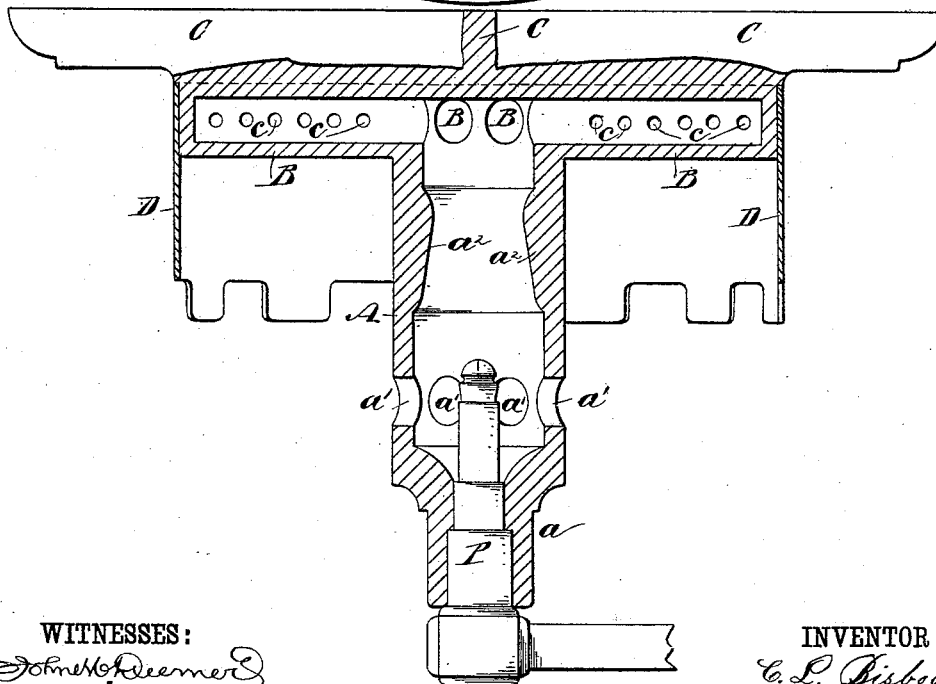


Fig. 2.



WITNESSES:

John H. Deemer
C. Sedgwick

INVENTOR:

C. L. Bisbee

BY

Munn & Co

ATTORNEYS.

(No Model.)

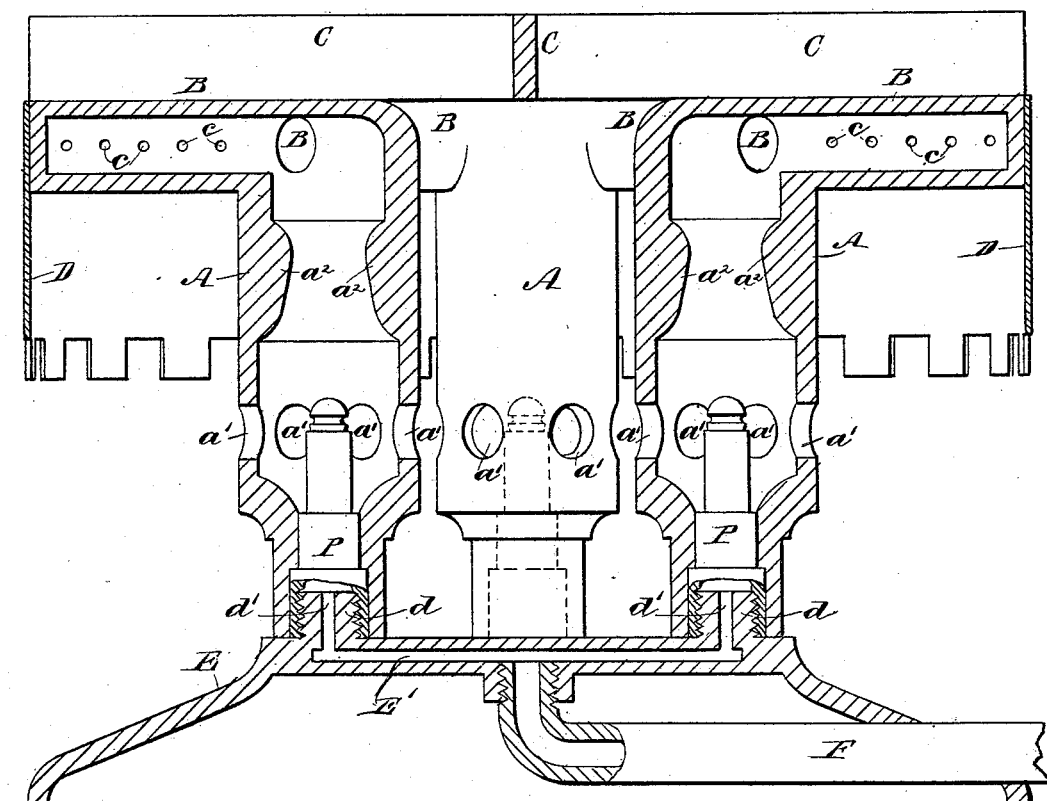
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Fig. 3.



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John H. Deane
C. Sedgwick

INVENTOR:

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BY

Munn & Co.

ATTORNEYS.

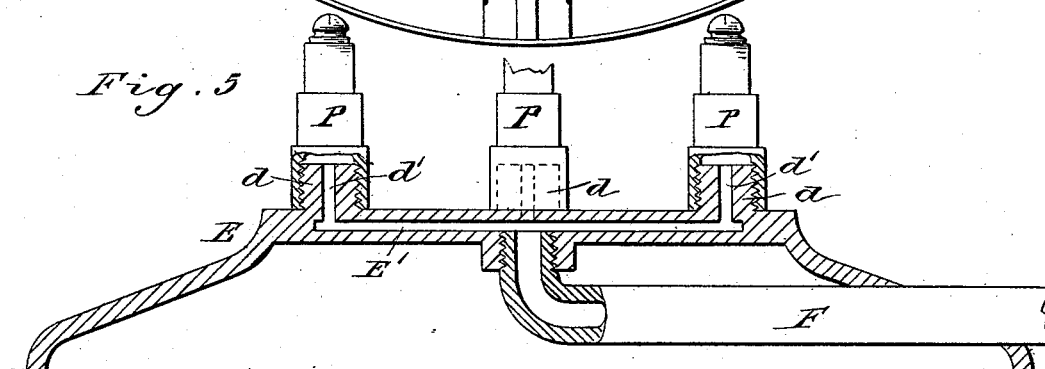
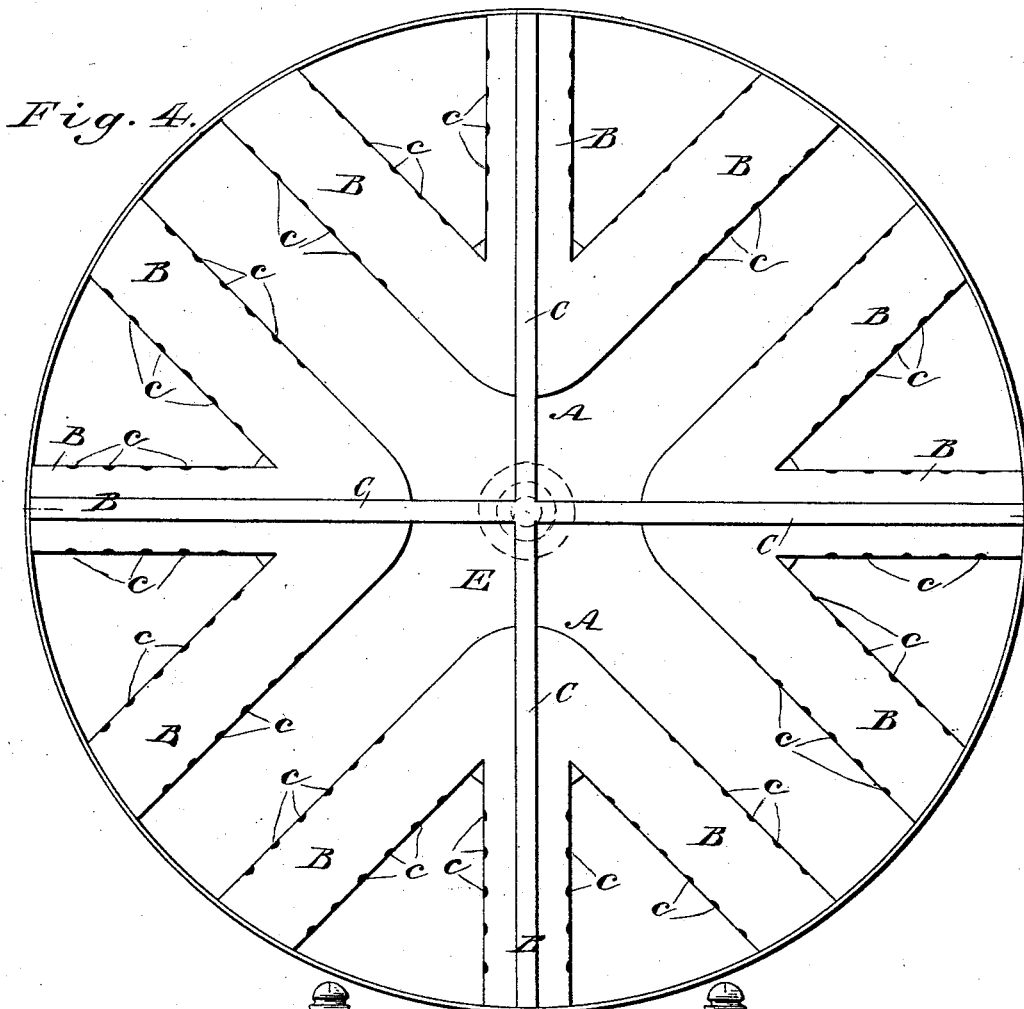
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BY

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

CLARENCE L. BISBEE, OF BROOKLYN, NEW YORK.

GAS-STOVE.

SPECIFICATION forming part of Letters Patent No. 347,561, dated August 17, 1886.

Application filed December 7, 1885. Serial No. 185,007. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE L. BISBEE, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Gas-Stove, of which the following is a full, clear, and exact description.

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

Figure 1 is a plan view of my new and improved gas-stove made on a small scale to be applied to common gas-jets. Fig. 2 is a sectional elevation of the same as it appears when placed upon a gas-jet for use. Fig. 3 is a sectional elevation of a stove made upon a large scale with a base, and several gas-jets to which gas is supplied through a tube. Fig. 4 is a plan view of the same; and Fig. 5 is a sectional view of the base, the gas-distributing portion being removed.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

Referring to Figs. 1 and 2, I form the stove with a single chamber or tube, A. At the top of this tube are formed the hollow radiating arms B B, which are closed at their outer ends, and have a series of gas-orifices, *c*, formed in the sides of each of them, through which the gas escapes, and from which it is burned. The tube A is contracted at its lower end, at *a*, to fit snugly upon the gas-jet P, and through it are formed the air-inlet holes *a'*. These are slightly below the top of the jet P, and serve to admit air to the interior of the stove to cause mixing of air with the gas previous to combustion at the orifices *c*, where the gas receives a second supply of oxygen, causing a thorough combustion with intense heat without smell and without the formation of lamp-black. The tube A is contracted in size upon the inside, at *a'*, to cause a more thorough commingling of the air with the gas and a regulated flow at the orifices *c*.

Upon the upper surface of each of the arms B are formed or secured suitable supports, C, for supporting above the arms the pot, basin, or other object to be heated. In this instance the supports C are cast integral with the hollow arms B, as indicated by the section-lines

in Fig. 2. A flange or rim, D, surrounds the stove and is attached to the outer ends of the arms B, and reaches some distance below them, to cause a draft of air up through the rim between the arms B B, so the heat will be applied effectively to the object to be heated resting upon the supports C. The upper edge of the flange or rim D stands below the supports C, so that the draft of air that enters the rim D will have ample escape outward between the supports C, the upper edge of the rim D, and the bottom of any object resting upon the supports.

In Figs. 3, 4, and 5, I employ several chambers or tubes, A, each formed or provided at its upper end with a cluster of radiating hollow arms, B B. The tubes or chambers A fit upon gas tubes or burners P, attached to the base E, and they are formed with air-inlets *a'*, and are contracted upon the inside, at *a'*, the same as in Figs. 1 and 2, and for the same purposes. The base E is formed with a chamber, E', to which gas is supplied through the gas-pipe F. From the chamber E' in the base the gas escapes to the burners P through the passages *d'* made in the small nipples *d*, on which the burners P are screwed. A draft flange or rim, D, surrounds the large cluster stove the same as in Figs. 1 and 2, and supports C are attached to or formed upon the center arm, B, of each cluster, for supporting a pot or other object to be heated at a slight elevation above the arms B.

By constructing the stove, as described, with the radial arrangement of the arms B free escape for the products of combustion from all parts of the stove from the center outward is provided for, and also free access of air to the gas-jets permitted, so that the carbonic-acid gas given off at one part of the stove will not deaden or conflict with the flame at another. This prevents odor and the escape of unconsumed gas, and prevents the deposit of lamp-black upon the object being heated. The supports C rising above the arms B and supporting the object to be heated, the latter will be held at the points of the jets of flame where the heat is greatest, and the rim D directs a copious supply of air to the jets *c*, and prevents side draft from deflecting the flame from the object being heated.

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

5 1. In a gas-stove, the chamber A, to which air and gas are admitted, in combination with radial arms B, having side perforations, *e*, supports C, and rim D, arranged below the supports, to permit the products of combustion and draft to pass over the rim, substantially as
10 described.

2. In a gas-stove, the chamber A, to which air and gas are admitted, in combination with the hollow radial arms B, having side perfora-

tions, *e*, and the surrounding rim D, attached to the arms B, and open at the bottom *b*, to admit a free circulation of air up through the rim to the frame, substantially as described. 15

3. The base E, formed with the chamber E', to which gas is supplied, in combination with jets P, chambers A, and radiating arms B, attached to the chamber A, substantially as described. 20

CLARENCE L. BISBEE.

Witnesses:

H. A. WEST,

EDGAR TATE.