

No. 654,801.

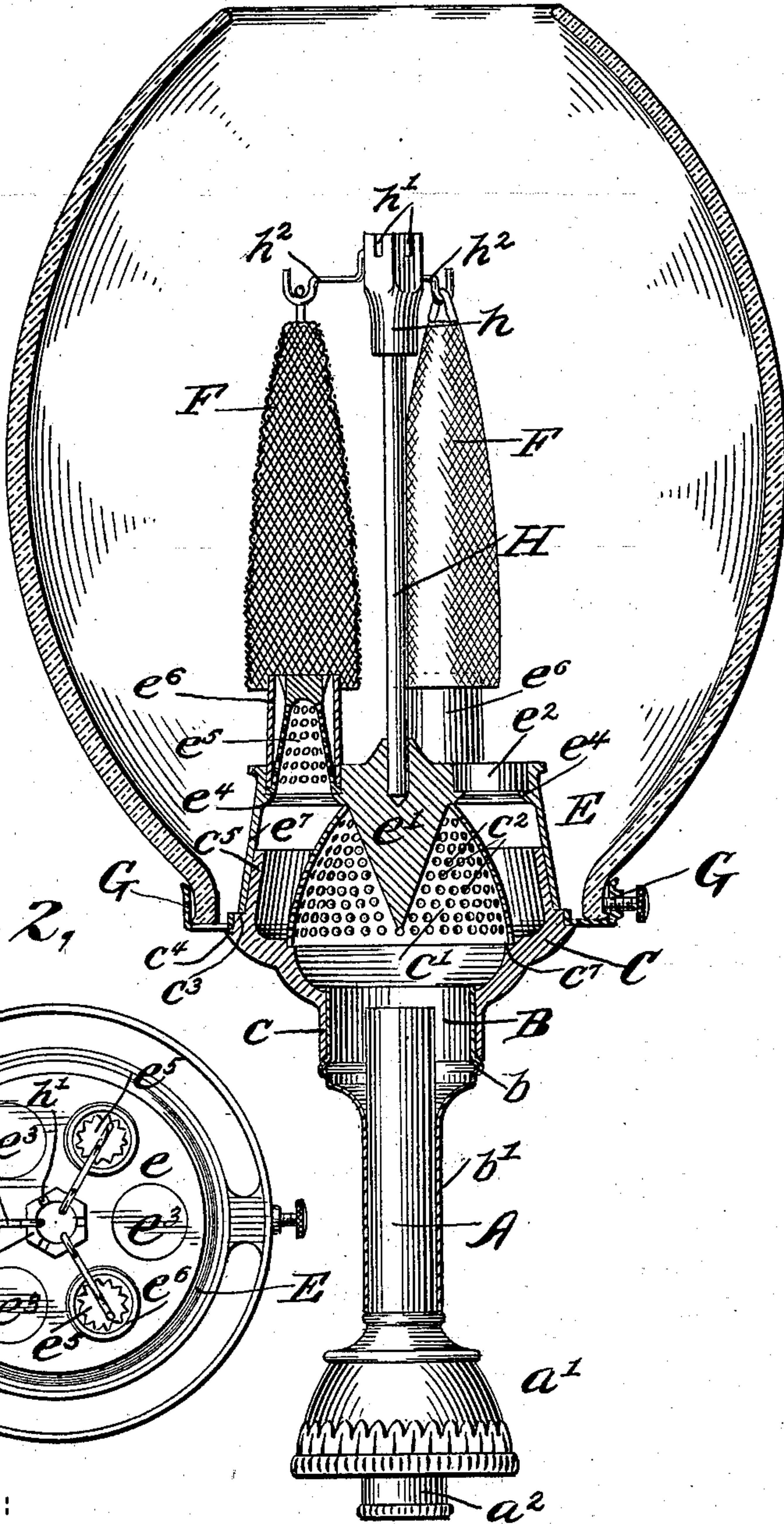
Patented July 31, 1900.

R. MOMAND.  
INCANDESCENT GAS LAMP.

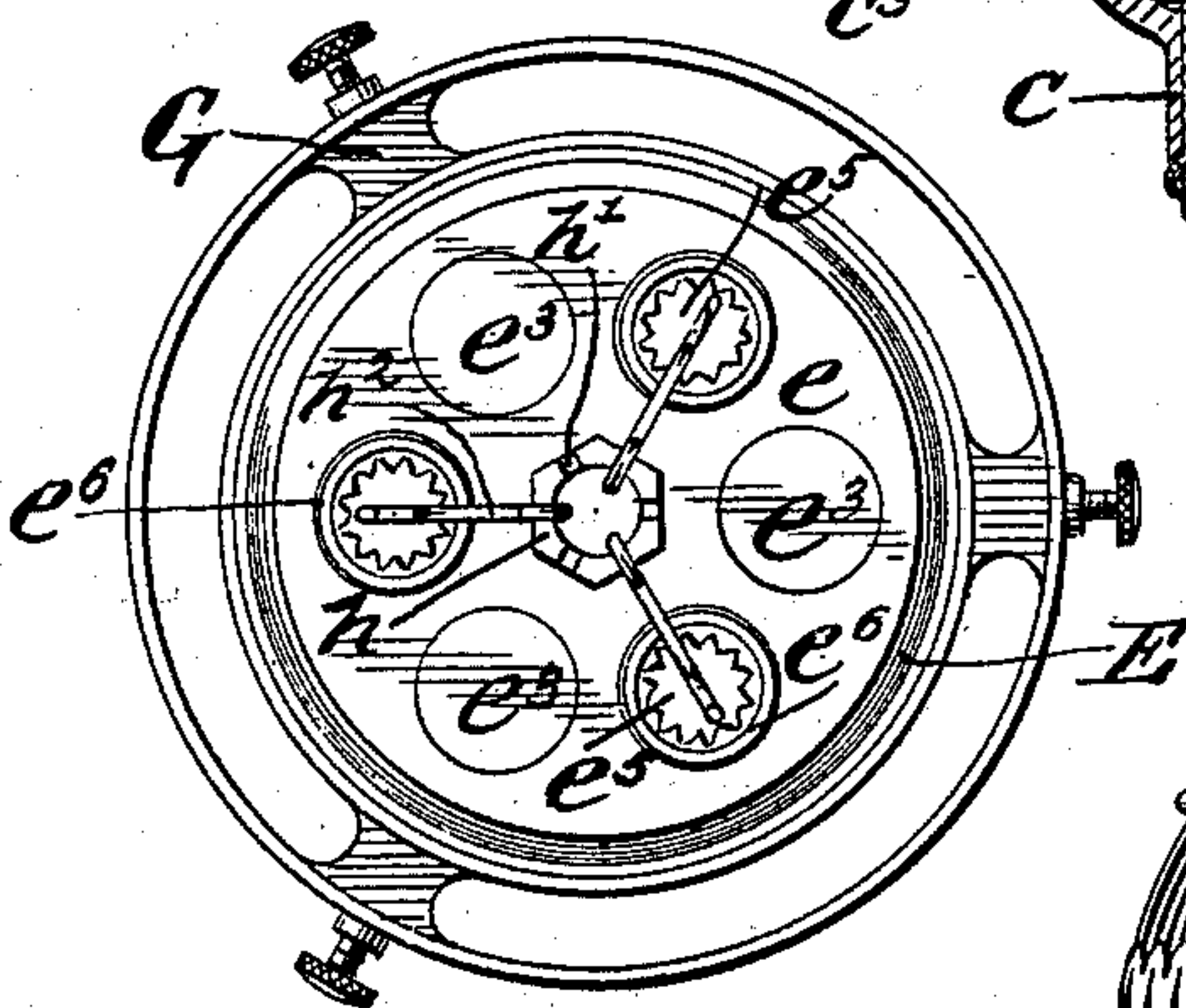
(Application filed July 20, 1899.)

(No Model.)

*Fig. 1,*



*Fig. 2,*



WITNESSES:

*W. H. Raynord*  
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INVENTOR

*Regland Momand*  
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HIS ATTORNEY



# UNITED STATES PATENT OFFICE.

RAGLAND MOMAND, OF NEW YORK, N. Y., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO MARY E. FIEROE AND ANNIE MOMAND, OF SAME PLACE.

## INCANDESCENT GAS-LAMP.

SPECIFICATION forming part of Letters Patent No. 654,801, dated July 31, 1900.

Application filed July 20, 1899. Serial No. 724,496. (No model.)

*To all whom it may concern:*

Be it known that I, RAGLAND MOMAND, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Incandescent Gas-Lamps, of which the following is a specification.

My invention relates to incandescent gas-lamps.

I will describe an incandescent gas-lamp embodying my invention and then point out the novel features thereof in the claims.

In the accompanying drawings, Figure 1 is a vertical section view, partly in elevation, of an incandescent gas-lamp embodying my invention. Fig. 2 is a top view thereof, the globe being omitted.

Similar letters of reference designate corresponding parts in both figures.

A represents the mixing-tube of the Bunsen burner commonly employed in incandescent gas-lamps,  $a'$  a shell which may be turned to regulate the size of the air-openings in its bottom, and  $a^2$  a connecting-nipple by which the lamp is supported on the gas-supply.

B represents a shell having an annular protuberance  $b$  and a tube portion  $b'$ , which surrounds the mixing-tube A. This tube  $b'$  may be of any desired length, and consequently the shell B will be supported a greater or less distance above the end of the tube A.

C represents a shell provided with an annular extension  $c$ , which surrounds the shell B and rests on the protuberance  $b$ . The shell C is provided with an interior shoulder  $c'$ , which serves as a rest for the shell  $c'$ , having openings  $c^2$ . I have shown the shell  $c'$  as being substantially conoidal, though it may be of any other desired shape. The shells  $c'$  and B form a chamber to permit of a better mixing of the air and gas.

$c^3$   $c^4$  represent annular and exterior shoulders on the shell C. The shoulder  $c^4$  is adapted to support a shade or globe holder G. This latter may be of any desired construction. The shoulder  $c^3$  is adapted to support a shell E, the wall  $e'$  of which is inclined and surrounds the portion  $c^5$  of the shell C. The

portion  $c^5$  is inclined to correspond to the wall of the shell E. The shell E, together with the portion  $c^5$ , forms another mixing-chamber for the air and gas after it escapes from the shell  $c'$  through its openings. The horizontal wall  $e$  of the shell E carries a conical or conoidal part  $e'$ , which projects downwardly and into the shell  $c'$ . This part is to cause the air and gas to pass out of all the openings in the shell  $c'$  in order that a substantially-equal supply of air and gas can be made to all the burners carried by the shell. The wall  $e$  is also provided with a plurality of openings  $e^2$ , in which burners are fitted. In the drawings I have shown the wall  $e$  as having six openings, three of which are closed by plugs  $e^3$ . Within each opening a shoulder  $e^4$  is provided for supporting its burner. Each burner comprises, essentially, a perforate shell  $e^5$  and a tube  $e^6$ , inclosing the shell  $e^5$ . The perforate shell serves as a mixing-chamber, and its shape is substantially conoidal in order that a space may be provided between it and its inclosing tube. The top of the shell  $e^5$  is preferably serrated in order that the air and gas may escape to the mantle F, of refractory material. The wall of the tube  $e^6$  may be straight or inclined, as desired.

H represents a post or rod supported at one end in the part  $e'$  and provided at its other end with a cap  $h$ . The cap  $h$  is provided with a plurality of slots or cuts  $h'$ , in which one end of each of a plurality of supports  $h^2$  is held. The other end of each support is preferably formed with a hook, with which the loops of the mantles are engaged.

What I claim as my invention is—

1. In an incandescent gas-burner, the combination of an air and gas mixing tube, a perforated shell located above the end of said tube and constituting a mixing-chamber, a second shell inclosing said perforated shell and constituting another mixing-chamber, a plurality of burners carried by said shell, and a plurality of mantles of refractory material supported above said burners.

2. In an incandescent gas-burner, the combination of an air and gas mixing tube, a perforated shell located above the end of said



5 tube and constituting a mixing-chamber, a second shell inclosing said perforated shell and constituting another mixing-chamber, a plurality of burners carried by said shell for supplying air and gas to a plurality of mantles located above said burners, and a substantially cone-shaped part carried by said second shell projecting into said perforated shell, substantially as described.

10 3. In an incandescent gas-burner, the combination of an air and gas mixing tube, a perforated shell supported above said tube and constituting a mixing-chamber, a second shell inclosing said perforated shell and constituting a second mixing-chamber, and a plurality of burners carried by said second shell for supplying air and gas to a plurality of mantles of refractory material located above the burners, each of said burners comprising  
20 a perforated shell and a tube inclosing said shell.

4. In an incandescent gas-lamp, the combination of an air and gas mixing tube, a perforated shell supported above said tube,  
25 a second shell inclosing said perforated shell and carrying a plurality of burners, a post or rod carried by said second shell, a cap carried by said rod, having a plurality of cuts

or recesses, and a support for a mantle located in each of said slots. 30

5. In a gas-burner the combination of a gas and air mixing tube, a chamber in communication with said tube and having perforated walls for effecting the more thorough mixing of the gas and air from said tube, a shell inclosing said chamber for forming an outer chamber, and a plurality of gas-burners in communication with said outer chamber, substantially as described. 35

6. In an incandescent gas-lamp, the combination of a post, a cap having a plurality of slots or cuts extending longitudinally of the cap, carried by said post, a plurality of arms carried by said cap and extending radially therefrom, one end of each arm being provided with means for detachably holding it in a slot or cut and its other end formed into a hook, a mantle suspended from each hook, and a burner for each mantle. 45

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 50

RAGLAND MOMAND.

Witnesses:

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GEORGE HENRY RAYMOND.