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Patented Dec. 26, 1899.

A. S. NEWBY.
INCANDESCENT GAS BURNER.

(Application filed May 17, 1899.)

(No Model.)

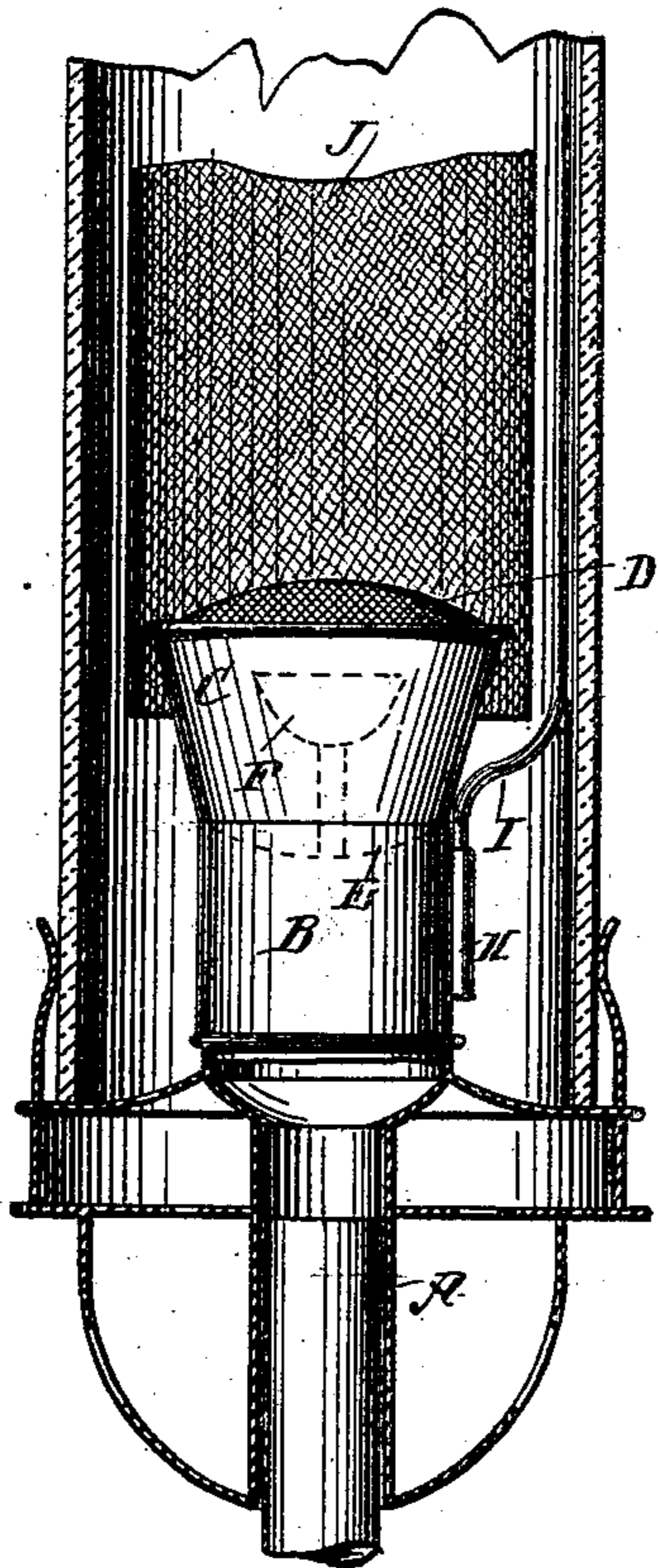


Fig. 1

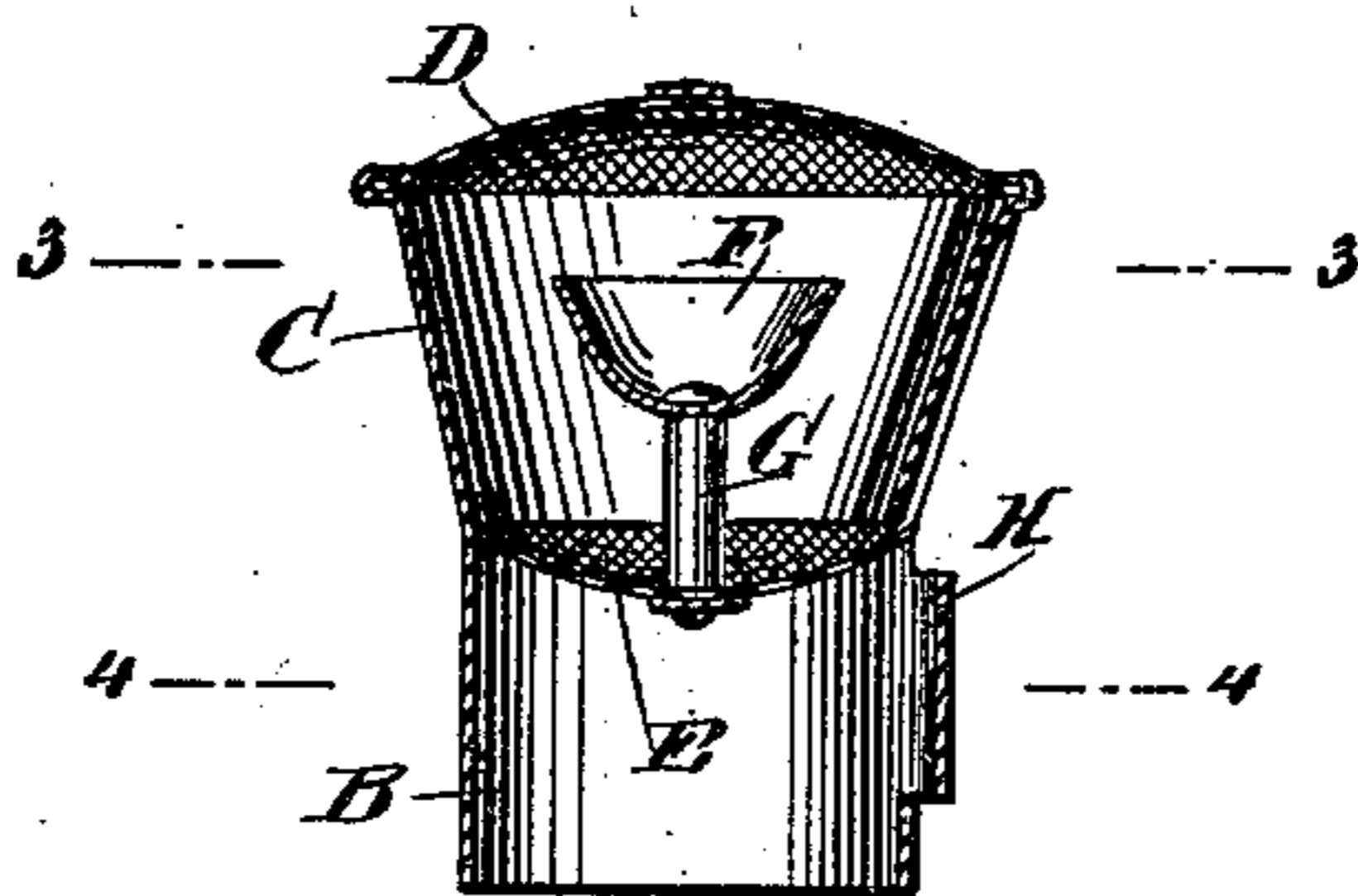
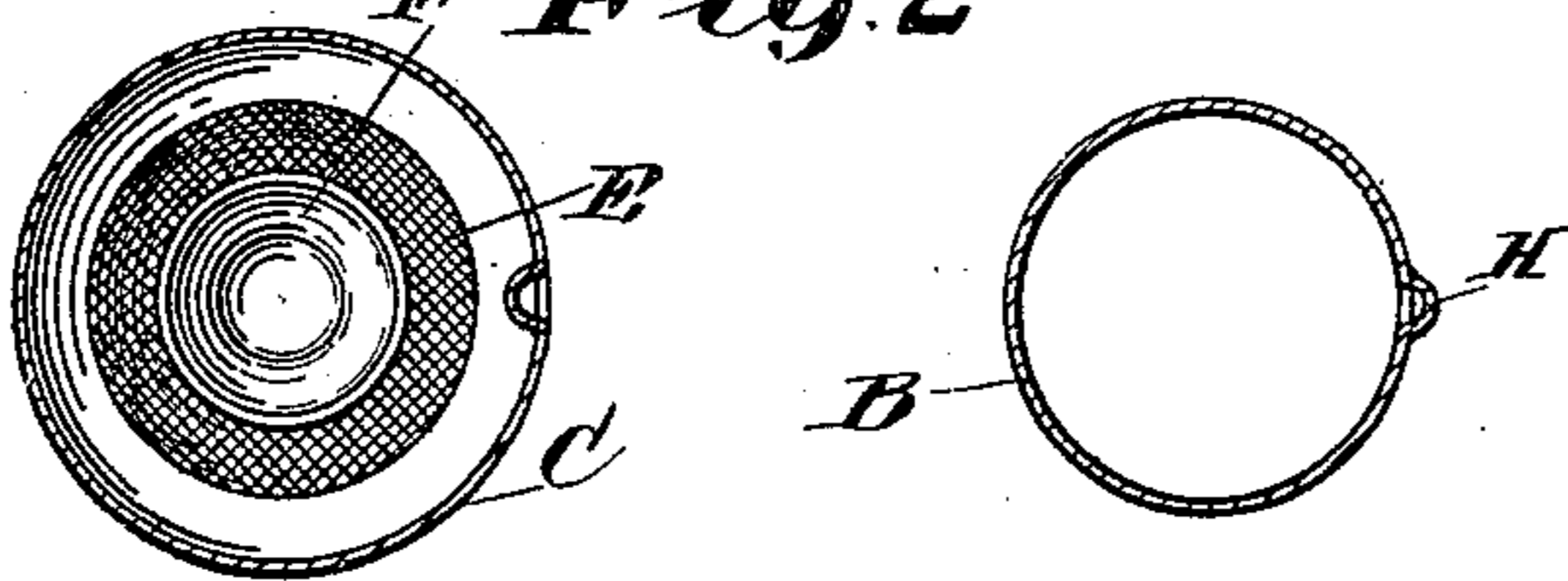


Fig. 2



WITNESSES:

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ALBERT S. NEWBY, OF KANSAS CITY, MISSOURI, ASSIGNOR TO HIMSELF,
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INCANDESCENT GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 640,015, dated December 26, 1899.

Application filed May 17, 1899. Serial No. 717,181. (No model.)

To all whom it may concern:

Be it known that I, ALBERT S. NEWBY, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and
5 Improved Incandescent-Burner Cap, of which the following is a full, clear, and exact description.

My invention relates to an improvement in caps for burners for use in connection with
10 incandescent mantles, whereby a mantle of larger size than usual may be employed.

My invention comprises the novel features hereinafter described and claimed.

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

Figure 1 is an elevation of my device, showing a portion of the burner with the chimney
20 and mantle in section. Fig. 2 is a sectional elevation of my device, and Figs. 3 and 4 are sectional plans taken upon the lines 3 3 and 4 4 of Fig. 2.

The object of my invention is to provide a
25 cap which may be applied to ordinary burners of the class above specified, whereby they may be adapted to use a larger mantle than heretofore employed, thus increasing the illuminating power of the burner. To secure
30 this result, I provide a cap which is to be slipped over the upper end of the tube which supplies the mixture of air and gas, said cap being enlarged at its upper end, so as to spread the flame more and accommodate a
35 large-sized mantle.

The tube A of the burner herein shown is constructed in accordance with that used in an ordinary burner and through which the mixture of gas and air is introduced to the
40 burner. As herein shown, the tube itself has an enlarged upper end, and the base B of the cap is made so as to fit over the upper end of the tube. The upper end of the cap is enlarged, as herein shown, the upper section C
45 being flared or of conical form, and at the upper end of this conical section a gauze diaphragm D is provided. A second diaphragm E is also provided, which is located intermediate the ends of the cap—as herein shown at
50 the lower end of the conical section. This diaphragm is used to support a spreader F, which is a conical cup placed within the upper end of the cap and supported from the lower gauze diaphragm E by means of a stem

G. Upon one side of the base B of the cap 55 a socket H is provided, within which is placed the lower end of the mantle-supporting post I. This post is bent outwardly, so as to pass the enlarged upper end of the cap, and then extends upwardly and supports the mantle J 60 in the usual manner from its upper end.

With this form of cap attached to the ordinary burner the mixture of air and gas is spread toward the outer edge of the cap and brought in close contact with the mantle. Be- 65 ing larger than the usual cap, a larger mantle may be used without having the air enter in too large quantities within the mantle. In consequence of this a greater illuminating power may be obtained from the same burner 70 without going to the expense of procuring an entirely new burner. In making burners where they are designed for use with a large mantle the upper end of the burner itself might be provided with a flaring end, as herein 75 shown. My principal object, however, is to provide a device which may be used in connection with the ordinary burners to increase their illuminating power.

Having thus fully described my invention, 80 I claim as new and desire to secure by Letters Patent—

1. A burner-cap for use with incandescent mantles, comprising a cap adapted to be secured to the upper end of the burner-tube, 85 said cap having an enlarged upper end, two gauze diaphragms located one at the top of the cap and the other intermediate its ends and a spreader supported within the cap between the diaphragms and from the lower 90 diaphragm, substantially as described.

2. A burner-cap for use with incandescent mantles, comprising a cap adapted to be secured to the upper end of the burner-tube, said cap having an enlarged upper end, a ver- 95 tical rib stamped or pressed outward on that part of the cap which fits over the burner-tube, its upper end being open forming a socket for the reception of the mantle-supporting post, two gauze diaphragms located 100 one at the top of the cap and the other intermediate its ends, and a spreader supported within the cap from and above the lower diaphragm, substantially as described.

ALBERT S. NEWBY.

Witnesses:

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ERNEST G. FRANKS.