

Y. K. BUELL.
LAMP CHIMNEY.

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1,022,353.

Patented Apr. 2, 1912.

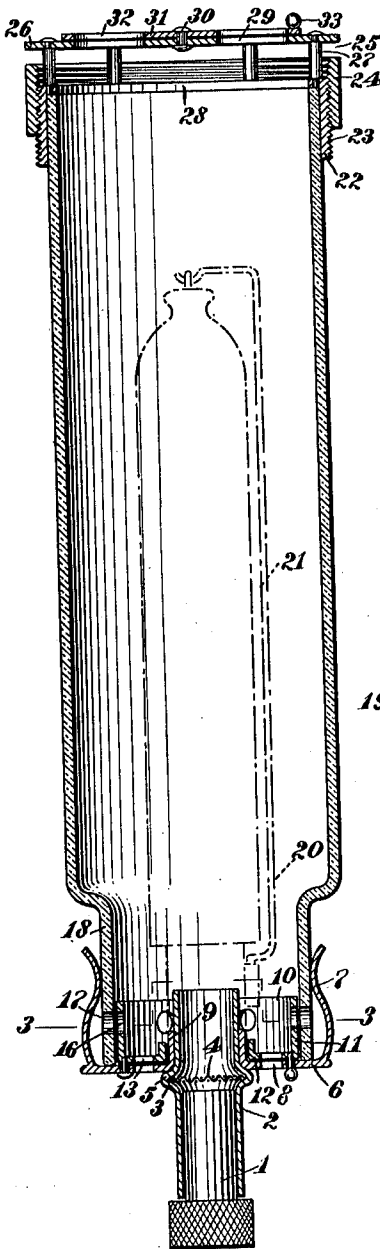


Fig. 1

WITNESSES

J. A. Brophy
F. H. Munroe

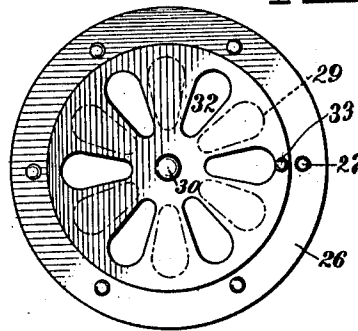


Fig. 2

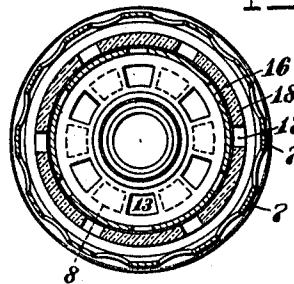


Fig. 3

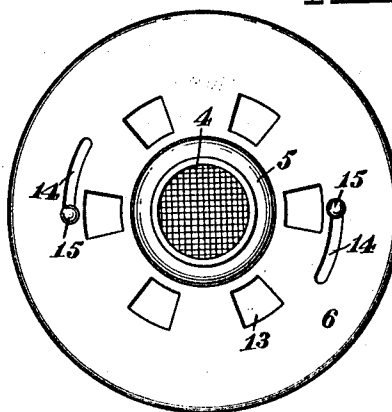


Fig. 4

INVENTOR
Young Kie Buell
BY *Munroe*
ATTORNEYS

UNITED STATES PATENT OFFICE.

YOUNG KIE BUELL, OF NEW YORK, N. Y.

LAMP-CHIMNEY.

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Specification of Letters Patent.

Patented Apr. 2, 1912.

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To all whom it may concern:

Be it known that I, YOUNG KIE BUELL, a subject of the Emperor of China, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Lamp-Chimney, of which the following is a full, clear, and exact description.

This invention relates to lamp chimneys, and particularly to the type of lamp chimney that is used in connection with mantle burners.

The object of the invention is to produce a lamp chimney having improved means for regulating the draft at the upper and lower ends thereof.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

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

Figure 1 is a vertical central section through a lamp chimney and burner constructed according to my invention; Fig. 2 is a plan of the chimney; Fig. 3 is a cross section through the base of the chimney and through the burner, taken on the line 3—3 of Fig. 1; and Fig. 4 is a plan upon an enlarged scale, of the middle portion of the burner.

Referring more particularly to the parts, 1 represents the gas jet upon which there is seated a tubular nipple 2. Just above the upper edge of the gas jet, this tubular nipple is expanded to form an annular seat 3 for a screen 4 of wire gauze or similar material, which is seated in the nipple, as shown. At the point where this seat 3 is formed, the outwardly expanded material forms a collar 5, and this collar forms a seat for the base 6 of the burner. This base is in the form of a plate having upwardly projecting tongues or keepers 7 which are adapted to retain the lamp chimney, as illustrated. The burner base is provided with a plurality of openings 8 which are disposed circumferentially. The middle portion of the base 6 is formed into a sleeve 9 which is received over the upper end of the nipple, and the lower edge of this sleeve seats against the collar 5, as indicated. On the upper face of the base 6, a draft ring 10 rests. This draft

ring has a cylindrical body 11 at the lower edge of which an integral disk 12 is formed, and this disk is provided with a plurality of openings 13 which are adapted to register with the openings 8 so as to permit an upward movement of air through the base. The base 6 is provided with circumferentially disposed slots 14, and small pins 15 are provided on the draft ring which project through these slots. The heads of these pins project so as to enable them to be moved by means of the fingers, in the slots 14. In this way the openings 13 may be thrown in or out of register with the openings 8, so that the amount of opening at this point may be nicely regulated. In addition to this the cylindrical body 11 of the ring is formed with openings 16, and these openings are adapted to register with similar openings 17 which are formed in the reduced neck 18 at the lower end of the chimney 19. The lower edge of this neck 18 seats against the base 6, and its sides are engaged by the tongues 7, as shown.

On the upper end of the nipple 2, a mantle holder 20 is attached, said mantle holder being represented in dotted lines. This mantle holder supports a mantle 21 centrally within the chimney, as indicated. On the upper end of the chimney 19 a cap ring 22 is seated. This cap ring has a cylindrical body which is provided with external threads 23, and on these threads 23 an upper draft ring 24 is mounted. This draft ring is adapted to be screwed up or down on the ring 22 so as to regulate the gap or opening 25 which normally exists between its upper edge and the edge of a cap plate 26. This cap plate 26 is supported on posts or studs 27 which project up from the cap ring 22. The upper edge of the cap ring 22 is provided with an inwardly projecting lip or shoulder 28 which seats on the upper edge of the chimney, as indicated. The cap plate 26 is provided with a plurality of circumferentially disposed openings 29, and a central pivot pin 30 is provided by means of which a damper plate 31 is attached to the upper face of the cap plate. This damper plate 31 is provided with openings 32 which register with the openings 29 so as to permit a free upward movement of air through the cap plate. The shape of these openings is illustrated in Fig. 2. At a suitable point on its upper side, the damper plate 31 is provided with a knob or button 33 by means

of which it can be rotated so as to adjust the amount of opening at this point. From this construction, it will be evident that the amount of opening through the gap 25 or through the openings 29 can be nicely regulated, so that if desired the upper portion of the draft will pass through the gap 25, or vice versa.

Referring again to the lower end of the chimney, attention is called to the fact that the neck 18 is of slightly larger diameter than the ring body 11, so that the neck seats over the body, as indicated. Attention is called also to the fact that when the chimney is seated it can be rotated, if desired, independently of the other parts, so that the openings 8 and 13 may be in perfect register, while the openings 16 and 17 are out of register. From this arrangement all of the draft can be brought up through the bottom of the burner. Likewise, if desired, the openings 8 may be closed and the chimney openings 17 may be in complete register with the openings 16, at which time the entire draft will be brought in from the side. In this way the draft at the base of the chimney can be nicely regulated.

From the arrangement described, it will be evident that not only the quantity of air passing through the chimney at the base or upper end thereof can be nicely regulated, but also the proportion of air which passes into or out of the chimney in a lateral direction with respect to the air passing vertically through it, can be nicely regulated. In this way the effect of the draft on the burner can be very nicely controlled.

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

1. In combination, a lamp chimney, a cap ring seated on the upper edge thereof, a plurality of studs projecting up from said cap ring and rigid therewith, a cap plate fixed on said studs, and a regulator ring adjustably mounted on said cap ring, being

arranged so that its upper edge may lie near the outer edge of said cap plate forming a gap through which the gases of combustion may pass.

2. In combination, a chimney, a cap ring seated on the upper edge thereof and having external threads therethrough, a cap plate supported above said cap ring and having draft openings, a damper on said cap plate for controlling the amount of opening of said draft openings, and a regulating ring mounted on the threads of said cap ring and having its upper edge lying adjacent to the upper edge of said cap plate.

3. In combination, a tubular nipple, a base mounted on said nipple and having draft openings therethrough, a draft ring seating on said base, having draft openings adapted to register with said first draft openings and having draft openings in the side thereof, and a chimney seating on said base and having draft openings which may register with said last draft openings.

4. In combination, a tubular nipple, a base seating on said nipple and having a plurality of draft openings therethrough, a draft ring seating on said base, having draft openings adapted to register with said first draft openings, said draft ring having a vertical cylindrical side wall with side draft openings therethrough, a chimney having a neck seating over said vertical cylindrical wall and having its lower edge supported on said base, said chimney having side openings adapted to register with said first side openings, and tongues projecting up from said base and engaging said neck to retain said chimney.

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

YOUNG KIE BUELL.

Witnesses:

CARMINE FRASCIA,
MORRIS COHEN.