

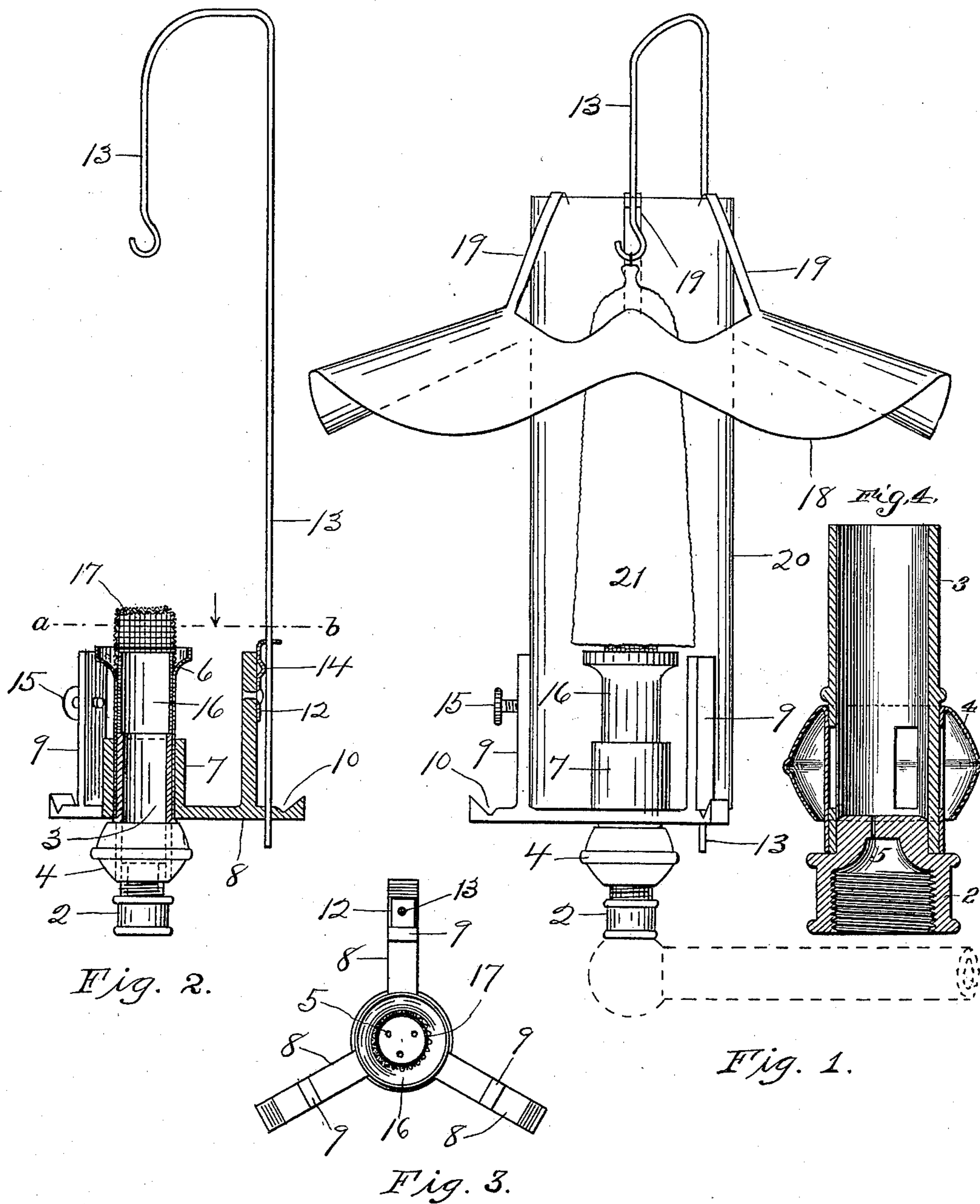
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Patented June 3, 1902.

L. C. FULLER.
GAS LAMP.

(Application filed Dec. 24, 1900.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

LOUIS C. FULLER, OF KANSAS CITY, MISSOURI.

GAS-LAMP.

SPECIFICATION forming part of Letters Patent No. 701,323, dated June 3, 1902.

Application filed December 24, 1900. Serial No. 40,911. (No model.)

To all whom it may concern:

Be it known that I, LOUIS C. FULLER, a citizen of the United States, and a resident of Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Gas-Lamps, of which the following is a specification.

My invention relates to that class of gas-lamps in which an incandescent mantle is held suspended above the flame; and the principal object of my invention is to illuminate a larger portion of the mantle than is illuminated in other lamps. I effect this result by constructing the tip of the burner smaller than the opening in the lower end of the mantle, thereby permitting it to project inside of the lower portion of the mantle.

A further object of my invention is to obviate the usual corrosion or burning of the mantle-supporting wire, and I effect this result by running this wire up outside of the chimney instead of inside, as in ordinary lamps.

A further object is to produce an improved adjustable fastening for the mantle-supporting wire which dispenses with the usual thumb-screw, which is always too loose or too tight.

With the above objects in view my invention consists in the novel construction of parts, as hereinafter described, and embodied in the claims.

Referring to the drawings, in which corresponding numerals refer to corresponding parts, Figure 1 is an elevation of a gas-lamp constructed in accordance with my invention. Fig. 2 is a side view, partly in central vertical section, of the lamp without the mantle, shade, and chimney. Fig. 3 is a sectional plan view taken on line *a b* of Fig. 2. Fig. 4 is an enlarged central section of the air-mixing device detached.

2 designates an ordinary bushing by means of which the lamp may be connected to any gas - fixture. Above this bushing, secured thereto, is an air-mixing device comprising a vertical tube 3 and a thimble 4, mounted rotatably thereon, the tube having perforations inside the thimble, which is provided with air-inlets, which may be caused to register with said perforations or to partially close the same

by rotating the thimble. 5 designates perforations in a disk secured across bushing 2, through which perforations the gas enters the mixing-tube 3. I do not claim this device as my invention and do not wish to limit myself to employing this particular form of air-mixer.

Snugly fitting around the upper portion of tube 3 is an upwardly-extending tube 6, having a flaring top, as shown. Mounted on the lower portion of tube 6 is the hub 7 of a spider having three outwardly-projecting arms 8. Integral with each arm 8 is a vertical finger or chimney-guide 9. Each arm is provided near its outer end with a notch 10 for receiving a large chimney when such is used.

Secured to the outer face of one of the guides 9 is a strip 12, preferably of spring-steel, having its upper end bent outwardly and perforated for the mantle-support 13. A crimp 14 is formed in this strip, a little below said perforated ear, and below this crimp the strip is riveted or otherwise secured to the guide-piece 9. The mantle - support 13 passes through the perforation in strip 12 and through a perforation in the arm 8, from which the guide rises. The strip 12 is so shaped and adjusted that the crimp 14 bears against the mantle-support with sufficient pressure to hold the support wherever it is placed. One of the other chimney-guides 9 is provided with a screw 15 for holding the chimney firmly in place.

Within the upper portion of tube 6 is a short tube 16, to the upper end of which is secured the burner-tip 17. I construct this tip of wire-gauze and form its top portion by making three or four slits or cuts in the tubular gauze and bending the flaps formed by these cuts across the top, as shown in Fig. 2. The top portion of the tip is thus thicker than the sides and offers more resistance to the escaping gas, the effect of which is to spread the flame, and thereby more thoroughly heat the mantle.

In Fig. 1 is shown my preferred shade and reflector for use in connection with this lamp. The shade is formed of a single and unbroken piece of sheet metal and comprises an annular portion 18 and three arms 19, extending upwardly and having their upper ends curled inwardly for engaging the top of the chimney

20. The annular portion 18 is fluted, substantially as shown.

As shown in Fig. 1, I adjust the rod 13 so that the lower end of the mantle 21 hangs
5 clear of the burner-tip and is free to swing slightly or vibrate without coming into contact with any part of the burner. By this means the life of the mantle is prolonged.

Having now fully described my invention,
10 what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a lamp, the combination of a lateral arm, a vertical finger rising therefrom, a sheet-metal strip secured to the finger, and having
15 its upper end bent outwardly and perforated, a crimp or bend in said strip below said perforated portion, a vertical perforation through said lateral arm, and a mantle-supporting wire extending through both of said perfora-
20 tions and frictionally engaged by said crimp, substantially as described.

2. In a lamp, a mantle-supporting device comprising, in combination with fingers for guiding the chimney, a sheet-metal strip se-
25 cured to the outer face of one of the fingers, said strip having an outwardly-projecting perforated ear and a crimp or bend below said ear, a lateral extension from the lower
30 tion therethrough, and a mantle-supporting

wire extending through both of said perforations, substantially as described.

3. A mantle-support for lamps, comprising a central tube 16, a spider mounted thereon, having a radial arm thereon, a vertical finger
35 rising from said arm, a sheet-metal strip secured to the outer face of said finger, a perforated ear extending laterally from said strip, a crimp or bend in said strip below said ear, a vertical perforation through said radial arm,
40 and a mantle-supporting wire passing through said perforation and through said perforated ear, and frictionally engaged by said crimp in said sheet-metal strip, substantially as de-
45 scribed.

4. In a lamp-burner, a vertical tube, and a tubular wire-gauze tip mounted thereon, having its top of greater thickness than its sides, substantially as described.

5. In a lamp-burner, a tubular wire-gauze
50 tip having its top formed by overlapping flaps cut from the upper end of the tip, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

LOUIS C. FULLER.

Witnesses:

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M. L. LANGE.