

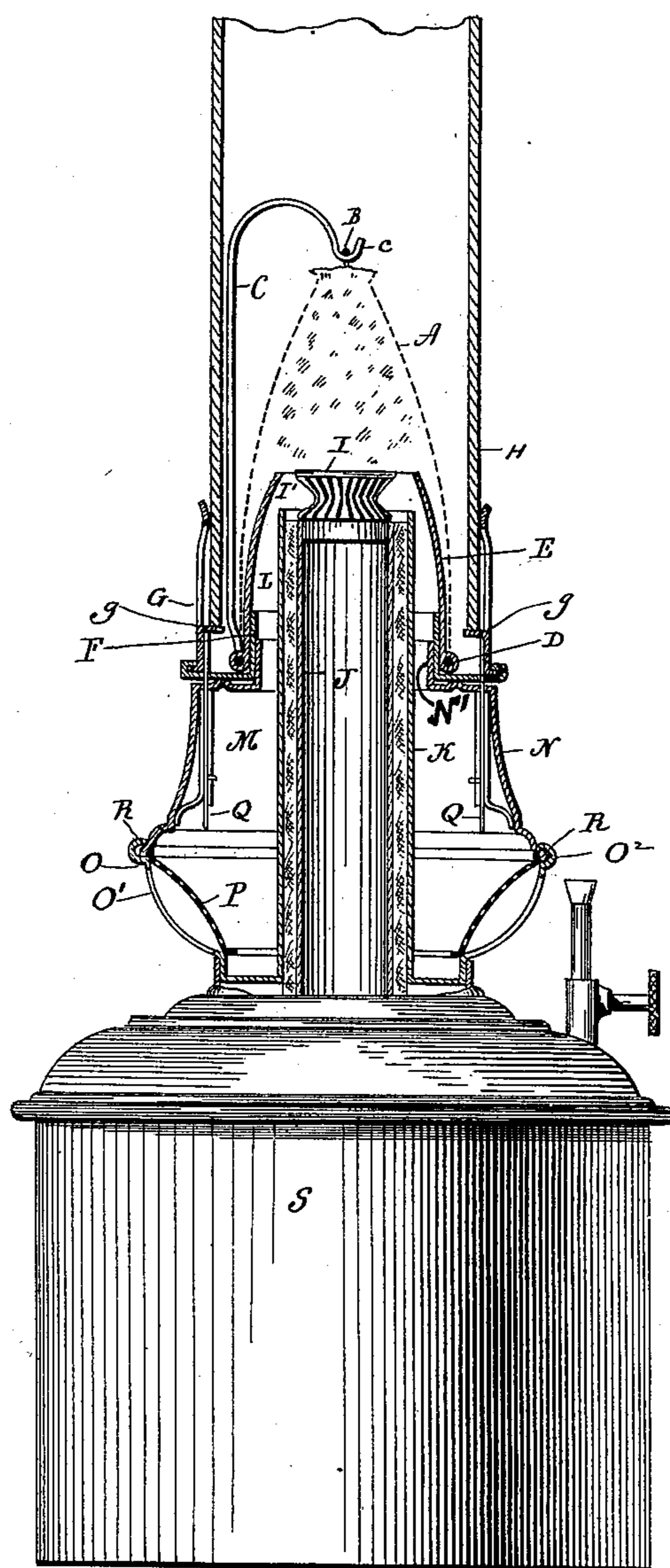
No. 652,780.

Patented July 3, 1900.

J. JAUCH.
LAMP BURNER.

(Application filed Mar. 24, 1899.)

(No Model.)



Witnesses.
J. H. Shumway.
Lillian D. Kelsey.

Joseph Jauch,
Inventor,
By atty Seymour & Carr

UNITED STATES PATENT OFFICE.

JOSEPH JAUCH, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE BRADLEY & HUBBARD MFG. CO., OF SAME PLACE.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 652,780, dated July 3, 1900.

Application filed March 24, 1899. Serial No. 710,360. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH JAUCH, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Lamp-Burners; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents a view, partly in elevation and partly in vertical section, of a lamp containing my improvement.

My invention relates to an improvement in that class of lamp-burners which employ mantles which are raised to incandescence by the flame, the object being to produce a simple, compact, and convenient burner constructed with particular reference to providing for the protection of the mantles and keeping them in shape without the use of additional parts for the purpose.

With this end in view my invention consists in a lamp-burner having certain details of construction and combinations of parts, as will be hereinafter described, and particularly recited in the claims.

In carrying out my invention as herein shown I employ a mantle A, which may be of any suitable mesh and construction, its contracted upper end being furnished with a suspension-loop B, by means of which it is suspended from a hook c, formed at the upper end of a wire mantle-support C, the lower end of which is bent to form a ring D, over which is spun the outwardly-rolled edge of a combined sheet-metal burner-cone and mantle-spreader E, made just large enough in diameter to fit closely within the open lower end of the mantle, which it keeps not only from lateral or sidewise displacement, but also from shrinking or collapsing under the effect of centrally-exerted suction or air-pressure or from other causes present in lamp-burners employing mantles. The said combined burner-cone and mantle-spreader is itself held in place by being set down over a collar F, located within and concentric with

the chimney-gallery G, which is furnished with inwardly-extending arms g, upon which the lower edge of the chimney H is supported, as clearly shown in the drawing. The upper edge of the said part E extends upward into the horizontal plane of the imperforate top of the foraminous air-distributor or flame-spreader I, the edge of the said combined part being separated from the top of the said air-distributor or flame-spreader by the annular space I'. The said part I is set within the upper end of the inner wick-tube J, which is surrounded by the outer wick-tube K, the upper edge of which extends slightly above the upper edge of the inner tube J. The upper edges of both of these tubes, however, fall considerably below the upper edge of the combined burner-cone and mantle-spreader E, which may be said to inclose a mixing-chamber L, to which air is supplied from the air-chamber M, formed by the body of the burner, which comprises a removable imperforate shell N and a perforated skirt O, having long radially-arranged openings O', a finely-perforated straining-cone P being located within the skirt O for straining the air entering the same through the long openings O'. The said shell N, upon which the gallery G rests, is formed at its upper end with a collar N', over which the gallery passes and which assists in preventing the collar from lateral displacement, the said collar N' being concentric with the collar F, over which the lower end of the combined burner-cone and mantle-spreader E rests. The gallery G is secured to the shell N, with respect to which it is vertically movable by means of two corresponding vertically-arranged arms Q Q, secured to the gallery and extending downward into the said shell, the lower edge of which is formed with locking projections R R, adapting the shell to be removably secured within the upper edge of the skirt O, which is furnished with a bead O² for the purpose of this connection; but these details of construction are not essential to a lamp-burner containing my invention, though I prefer to employ a burner-body of sufficient size and height to secure

ample isolation between the flame and the oil within the fount S, which is thus prevented from becoming too much heated.

It will be understood, of course, that the
5 main combustion of the commingled gas and air takes place within the mantle at a point between the top of the spreader and the upper edge of the combined burner-cone and mantle-spreader, although the initial com-
10 bustion of the oil takes place at the wick. The gas generated by the initial combustion of the oil is commingled with the rising currents of air and burned at or above the top of the flame-spreader and above the upper
15 edge of the combined burner-cone and mantle-spreader.

I by preference employ a tall chimney of a character designed to produce a strong draft, so as to draw the flame upward and produce
20 a strong combustion.

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

1. As a new article of manufacture, a com-
25 bined burner-cone and mantle-spreader made in one and the same piece, and furnished with a mantle-support by means of which a mantle is supported at its upper end, the lower end of the mantle being entered by the said
30 combined part which not only forms the

burner-cone of the burner, but also prevents the mantle from lateral displacement and from collapsing.

2. In a lamp-burner, the combination with a burner-body formed with a concentric col- 35 lar, of an inner and an outer wick-tube, an air-distributor or flame-spreader located within the upper end of the inner tube, a chimney-gallery formed with a collar which coacts with that of the burner-body in holding the 40 gallery in place, and a combined burner-cone and mantle-spreader formed in one piece and provided with a mantle-support, and adapted at its lower end to set over the said collar of the gallery, whereby it is centered and held 45 in place, the upper end of the said combined burner-cone and mantle-spreader extending above the upper ends of the inner and outer wick-tubes and into the plane of the upper end of the air-distributor or flame-spreader, 50 from which it is separated by an annular space.

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

JOSEPH JAUCH.

Witnesses:

A. B. SAVAGE,
C. D. NEWBURY.