A. H. NELSON. LAMP BURNER. APPLICATION FILED MAR. 6.

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ALBERT H. NELSON, OF LEWISTON, MAINE.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 751,545, dated February 9, 1904.

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To all whom it may concern:

Be it known that I, Albert H. Nelson, a resident of Lewiston, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Lamp-Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved lamp, and more particularly to an improved burner and wick, the object of the invention being to provide a burner which will be so constructed as to supply a large amount of oxygen for combustion and so direct its contact with the flame as to insure the best possible results.

A further object is to provide an improved wick and improved means for extinguishing

20 the flame thereof.

A further object is to provide an improved lamp in which the burner-hood and chimney-supporting base or platform can be swung back to permit complete access to the wick and interior of the burner.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation, illustrating my invention. Fig. 2 is a view in section of the same. Fig. 3 is a detail view of the wick. Fig. 4 is a view in section of the same, and Fig. 5 is a detail view of the extinguisher-tube.

1 represents an oil-tank of any desired construction and ornamentation, into which the threaded plug 2, supporting my improved

40 burner, is screwed.

The plug 2 is provided with outwardly and upwardly projecting arms 3, on the upper ends of which a perforated disk 4 is secured, and said disk is hinged at one side to a perforated ring 5, forming the base of the burner-hood 6 and made with a downwardly-projecting peripheral flange 7, inclosing the edge of the disk 4, and with an upwardly-projecting flange 8 to inclose the edge of the lamp-chimney, and 50 a suitable spring-catch 9 is provided on the

base 5 opposite the hinge thereof to hold the base and parts carried thereby in proper position and prevent possibility of accidental displacement thereof.

A metal guide-tube 9° is secured at its lower 55 end in the plug 2 and projects up through the disk 4 and extends above the latter the proper distance. A casing 10 is provided on disk 4, inclosing the upper end of tube 9°, and is contracted at its upper end to direct the air received through the central portion of the perforated disk 4 against the flame at the bottom thereof, while the greater portion of the air which passes up through the disk 4 is supplied to the sides and top of the flame.

In the tube 9^a my improved metal wick-tube 11 is mounted and has secured therein, preferably by stitching, a fabric wick 12, the stitches passing through perforations in the tube 11 and through the wick 12. The fabric 7° wick 12 extends up to near the top of tube 11, and the latter is provided on its top with a series of upwardly-projecting teeth 13 to hold a porous burner-tip 14 in place. The burnertip 14 comprises a mixture of ground earthen-75 ware and borax, preferably two parts of the former to one of the latter. Kerosene-oil is then mixed with this composition to form a paste, which is packed into the tube 11 and between the teeth 13. To harden this tip 80 before putting the wick on the market, the fabric wick is held in a suitable oil-containing tank, so as to absorb the oil, and the tip lighted, the oil taken up by the wick burning freely and drying the tip, which latter being 85 porous after being dried by the heat the flame will pass freely through the tip and thoroughly dry it to almost the hardness of stone, making a tip for the wick which forms an integral part thereof, which will not burn or 9° need trimming, and which will vastly improve the quality and steadiness of the light.

An extinguisher-tube 14° is mounted to slide on the tube 9° and is provided below disk 4 with outwardly-projecting arms 15, having 95 curved finger-holds 16 at their respective ends to permit the operator to readily raise the tube 14 to inclose and extinguish the flame of the wick.

The base portion of the burner is provided 100

with a series of spring-arms 17 to project into the lamp-chimney and bear outward against the same and securely hold it in position.

Various slight changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I would have it understood that I do not wish to limit myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

- 1. In a lamp-burner, the combination with a plug and a fixed tube extending upwardly from said plug, of a series of arms projecting upwardly from said plug, a perforated disk supported by the upper ends of said arms and encircling said fixed tube a short fixed tube appreciably larger than the first-mentioned tube, and a hood inclosing the short fixed tube and the upper portion of the first-mentioned fixed tube.
- 2. In a lamp-burner, the combination with a plug and a fixed tube projecting upwardly from the same, of a series of arms projecting upwardly from the plug, a perforated disk supported by said arms and surrounding said fixed tube, a short tube fixed to the perforated disk and spaced from the first-mentioned fixed tube, a hood inclosing the short fixed tube and

the upper portion of the first-mentioned tube, 35 a vertically-movable tube passing the space between the fixed tubes and means for moving said movable tube.

3. In a lamp-burner, the combination with a plug, arms projecting upwardly from said 40 plug and a perforated disk supported at the upper ends of said arms, of a fixed tube projecting upwardly from said perforated disk, a tube fixed to the plug passing upwardly through said first-mentioned fixed tube and 45 spaced from the latter, a hood inclosing the first-mentioned tube and the upper portion of the tube fixed to the plug, and a stationary wick-casing passing through the inner fixed tube and a wick secured in said casing, said 50 wick having an incombustible upper end.

4. In a lamp, the combination with a perforated disk, and a hood supported thereon and hinged at one side thereto, of a wick-tube supported centrally in said disk, a casing sursumding the wick-tube and inclosed in the hood, a sliding extinguisher-tube mounted on the wick-tube, and outwardly-projecting arms on the extinguisher-tube below the disk, bent at their ends to form finger-holds.

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

ALBERT H. NELSON.

Witnesses:

Susie E. Canwell, James M. Canwell.