F. A. SCHUETZ.

LAMP BURNER.

APPLICATION FILED NOV. 2, 1908.

923,301. Patented June 1, 1909.

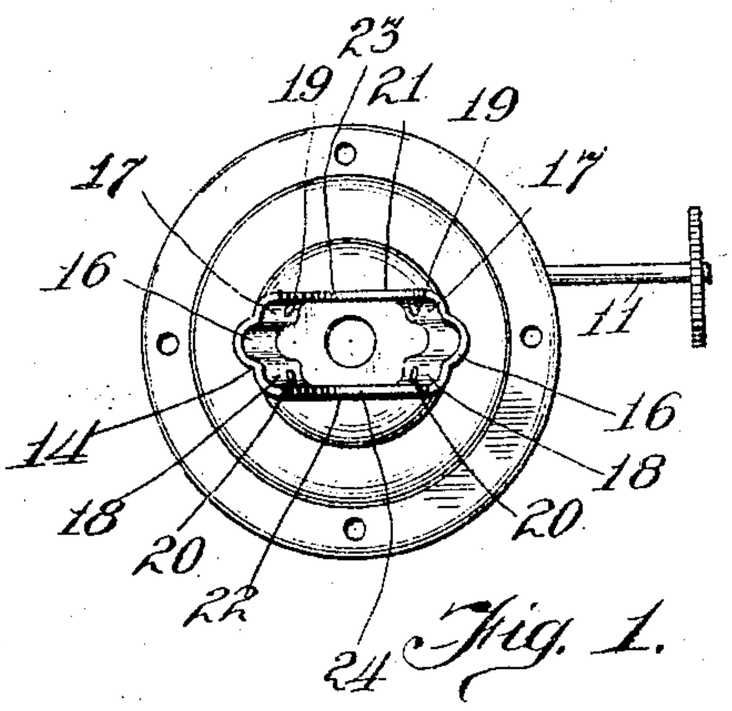

Fig. 1.

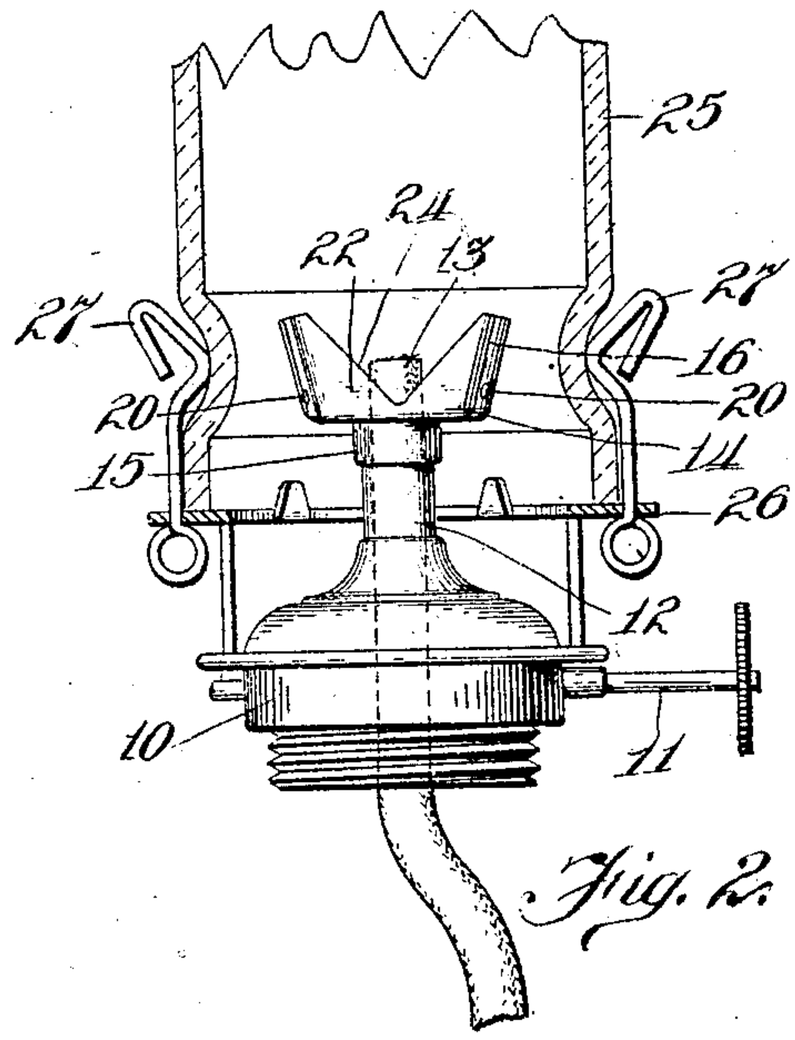

Fig. 2.

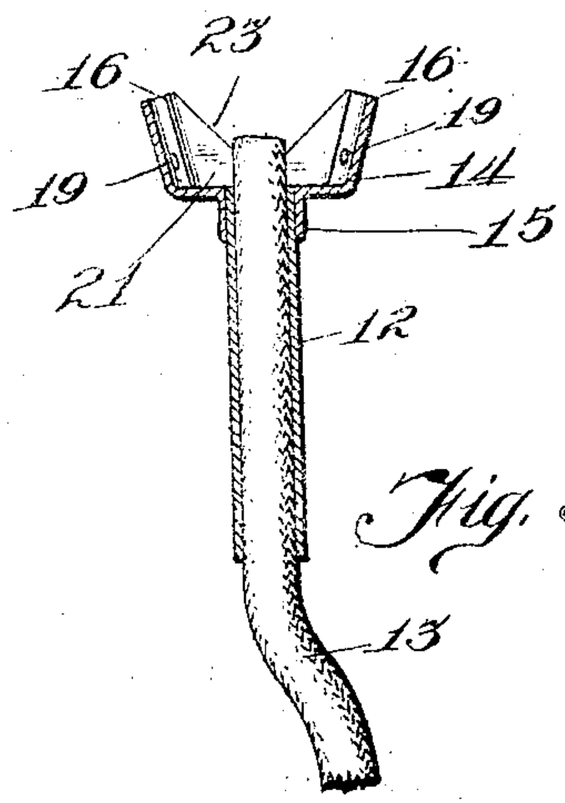

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

FRANK A. SCHUETZ, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE ADAMS & WESTLAKE COMPANY, A CORPORATION OF ILLINOIS.

LAMP-BURNER.

No. 923,301. Specification of Letters Patent. Patented June 1, 1909.

Application filed November 2, 1908. Serial No. 460,693.

To all whom it may concern:

Be it known that I, FRANK A. SCHUETZ, a citizen of the United States, and resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Lamp-Burners, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to burners for switch and signal lamps, and which have come to be known in the art as long-time burners, their characteristic feature being that they will produce a comparatively small flame for a long period without trimming.

The present invention is an improvement on the burner forming the subject of Letters Patent No. 851,827, of April 30, 1907, issued on the application of John A. Mosher, which was intended to produce a round or pencil point flame.

The object of this invention is to secure, in a burner of this type, a flat flame and one which will produce a greater degree of illumination; and it consists in the structure hereinafter described, and which is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the burner without chimney or chimney-holder; Fig. 2 is a side elevation of the burner, the chimney and chimney-holder being in central vertical section; and Fig. 3 is a central vertical section of the burner and wick-tube alone.

The burner is carried by the usual casing 10, adapted to be secured by a threaded stem, or other means, to a lamp font, not shown, and there is employed the usual wick-raising mechanism, the spindle of which is represented at 11. The wick-tube 12 extends through the casing 10 on its vertical axis, and is preferably round to accommodate a wick 13 of the same form. The burner proper is in the form of an oblong cup 14, centrally apertured to fit upon the upper end of the tube 12, the aperture being surrounded by a downwardly-projecting flange 15 which fits upon the tube as a sleeve.

The ends of the cup flare outwardly and are scalloped, as shown in Fig. 1, thereby providing a central groove or channel 16 flanked by oblique walls 17, 18, each of which is provided adjacent its lower end with an air port 19, 20. The sides 21, 22, of the cup are substantially parallel and are cut away or recessed from above to form in each a V-shaped aperture 23, 24, which extends well to the bottom of the cup. In practice the wick 13 is raised so that its upper end is above the bottoms of the apertures 23, 24, and above the ports 19, 20. The burner is preferably provided with a chimney 25, seated upon a gallery 26, and held in place by spring fingers 27.

The flame which normally, being from a round wick, would be pencil shaped, is spread by the burner to flat form, its edges following up the channels 16, 16. This flattened form is secured by the conjoint action of the channels 16 16, and the air currents entering through the apertures 23, 24, and the ports 19, 20. These currents strike the flame upon what become, under this action, its flattened sides, and those entering the ports having the form of jets and entering obliquely at considerable velocity carry the apex of the flame to a greater height than would otherwise be secured. They also insure better combustion adjacent the wick end, and retard the formation of a crust by more completely consuming, or at least preventing the condensation of the carbon.

The burner produces a greater illumination relatively to the oil consumption than has been heretofore obtained, and insures a uniformity in the size and shape, and consequently in the luminosity of the flame, for a very long period.

I claim as my invention—

1. A lamp burner comprising, in combination, a wick-tube, an oblong cup mounted on the tube and having its ends upwardly flaring and ported adjacent their bases.

2. A lamp burner comprising, in combination, a wick-tube, an oblong cup mounted on the tube and having its ends upwardly-flaring and ported adjacent their bases, the side walls of the cup being cut away to form V-shaped apertures.

3. A lamp burner comprising, in combination, a wick-tube, an oblong cup mounted on the wick-tube, the ends thereof being scalloped and ported in their outer scallops adjacent their bases.

4. A lamp burner comprising, in combination, a wick-tube, an oblong cup mounted on the wick-tube, the ends thereof being scalloped and ported in their outer scallops adjacent their bases, the side walls of the

cup being cut away to form V-shaped apertures.

5. A lamp burner comprising, in combination, a wick-tube, and a pair of oppositely-disposed flaring wings extending upwardly from the end of the wick-tube, such wings being scalloped to form in each a central channel and oblique walls flanking the channel, such walls being ported adjacent their bases.

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