G. K. BRADFIELD.

LAMP.

APPLICATION FILED APR. 29, 1910.

965,863. Patented Aug. 2, 1910.

FIG. 1.

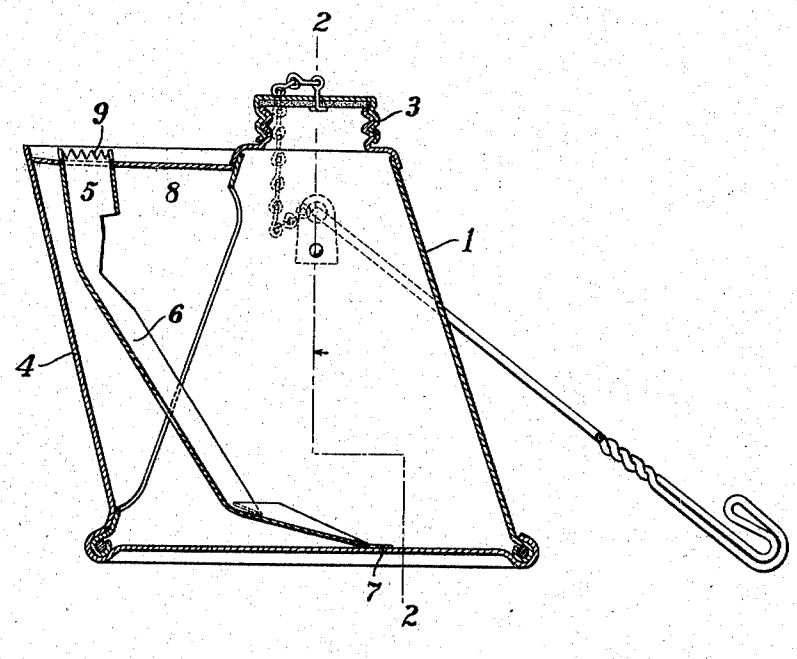
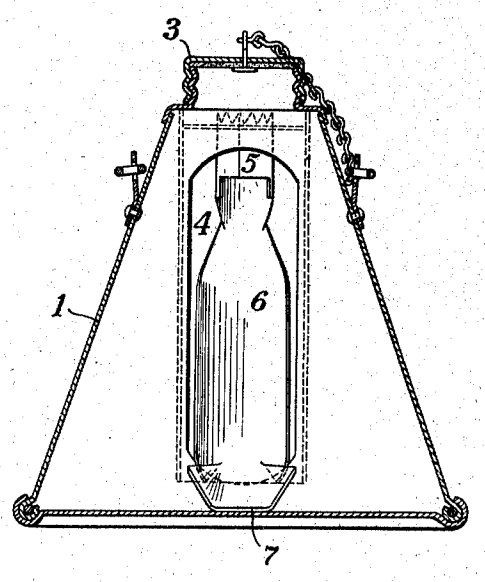


FIG. 2.



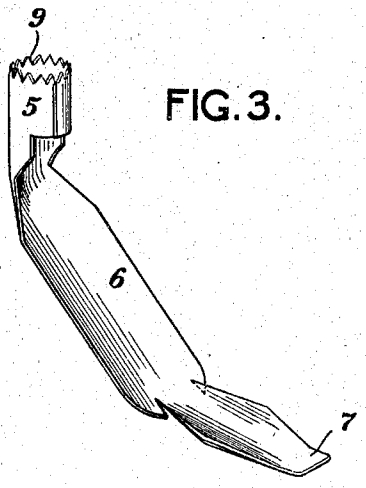


FIG. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE KEARNEY BRADFIELD, OF HACKENSACK, NEW JERSEY, ASSIGNOR TO VACUUM OIL COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

LAMP.

965,863. Specification of Letters Patent. Patented Aug. 2, 1910.

Application filed April 29, 1910. Serial No. 558,524.

To all whom it may concern:

Be it known that I, GEORGE KEARNEY BRADFIELD, a citizen of the United States, and resident of Hackensack, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

This invention relates to lamps of the type in which wax or other normally solid fuel is burned.

One object of the invention is to provide a lamp of the kind in question with improved means for melting the fuel as it is consumed. To this end I provide the wick tube of the lamp with an integral downward extension of novel form connected with the bottom of the lamp.

Another object of the invention is to provide a lamp of the kind in question with improved means for collecting and returning to the wick tube any liquid fuel which may escape from the wick tube or drop from the wick. To this end I provide the spout of the lamp with a substantially horizontal plate near the upper end thereof, which produces a receptacle for liquid, and in combination with this device I use a wick tube mounted in the plate and having upwardly-extending heat-collecting projections and intermediate recesses extending downward substantially to the upper surface of the plate so as to provide drainage openings through which any liquid collecting upon the plate may drain back into the wick tube and be absorbed by the wick.

In the drawings:—Figure 1 is a vertical median section of a lamp embodying the present invention; Fig. 2 is a vertical section on the line 2—2 in Fig. 1, looking from right to left; and Fig. 3 is a perspective view of the wick tube and the heat conductor.

The illustrated embodiment of my invention is provided with a body 1 of sheet metal which constitutes a fuel receptacle, and is provided with a filling opening closed by a screw cap 3. The lamp is provided with a spout 4 projecting from the front of the fuel receptacle, and within this spout is mounted the wick tube 5. The wick tube is formed integral with a heat conductor 6 which extends downwardly from the wick tube in oblique position to the bottom of the fuel receptacle, and the lower end 7 of the heat conductor is secured to the bottom of the receptacle by means of solder, or in any other convenient manner, so as not only to secure the heat conductor in place in the lamp, but also to facilitate the conduction of heat to the bottom of the receptacle so as to promote the melting of the fuel.

The heat conductor is formed in such a manner that it has a generally concave form both longitudinally and transversely upon its upper surface. It therefore constitutes both a support in which the wick may rest and a gutter to maintain the melted fuel in contact with the wick, so that only a small portion of the fuel need be melted at any one time in order to keep the wick saturated with melted fuel.

The upper end of the spout 4 is closed by a plate 8 which is substantially horizontal in the normal upright position of the lamp. This plate is located slightly beneath the upper edge of the spout, so that with such edge it constitutes a drip receptacle entirely surrounding the wick tube. The upper end of the wick tube is serrated to produce upwardly-extending heat-collecting projections 9 which are heated by the flame of the lamp and thus promote the conduction of heat downward through the wick tube and the heat conductor 6. The wick tube is arranged to project above the plate 8 to such an extent that the recesses between the projections 9 extend downward to, or substantially to, the upper surface of the plate 8. For this reason these recesses constitute drainage openings for the drip receptacle, so that any liquid fuel collecting in this receptacle is at once drained back into the wick tube and absorbed by the wick. Owing to this arrangement the exterior of the lamp is always kept clean and free from fuel, and the waste of fuel is also prevented.

I claim:—

A lamp having, in combination, a fuel

receptacle provided with a spout, a substantially horizontal plate closing the upper end of the spout below the upper edge thereof so as to provide a drip receptacle, and a wick tube secured in said plate and having heat-conducting projections extending above the plate, the intermediate recesses extending downward substantially to the surface of the plate so as to conduct liquid from the plate to the wick tube.

GEORGE KEARNEY BRADFIELD.

Witnesses:
HUBERT A. JUDGE,
LOUIS H. KEFER.