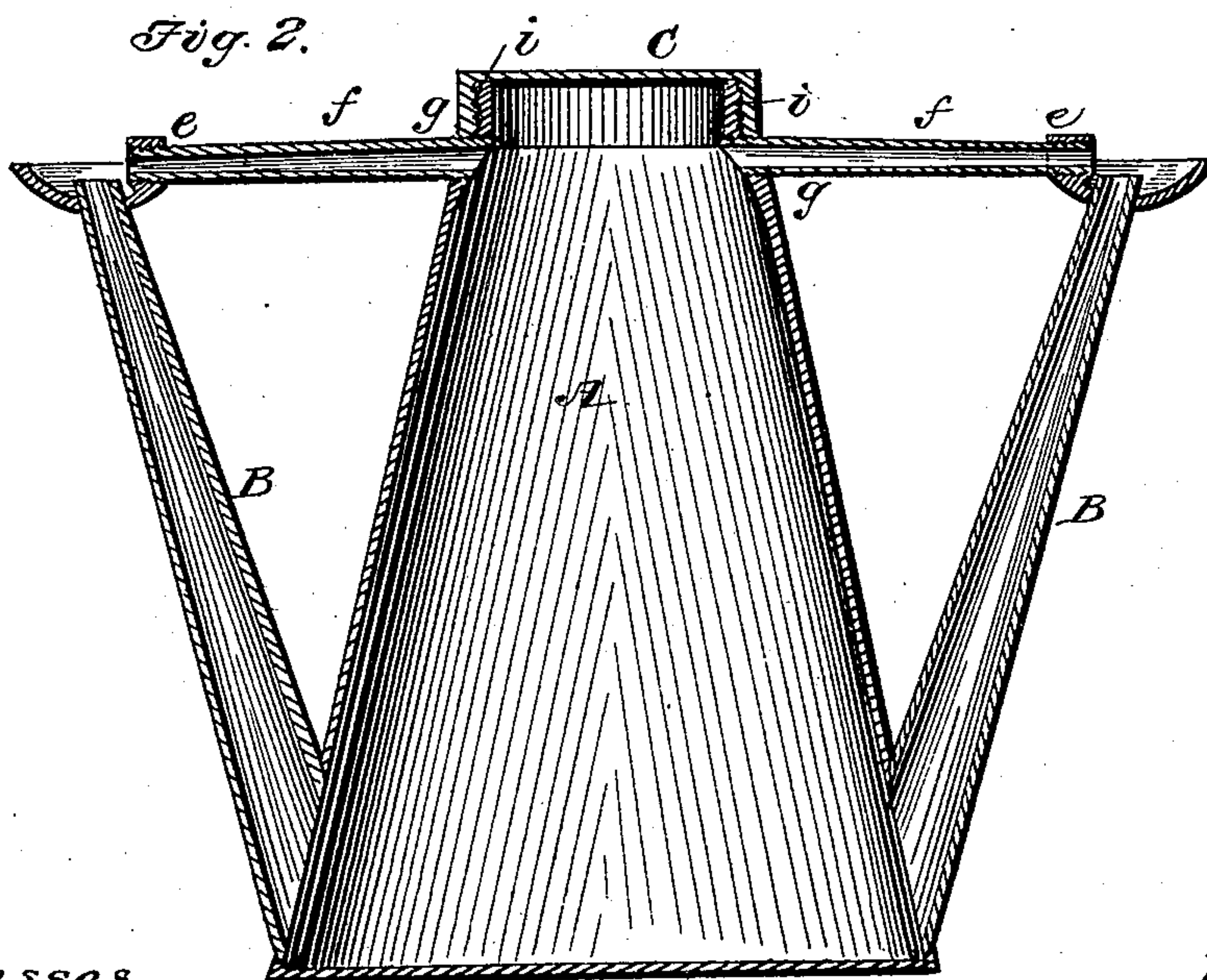
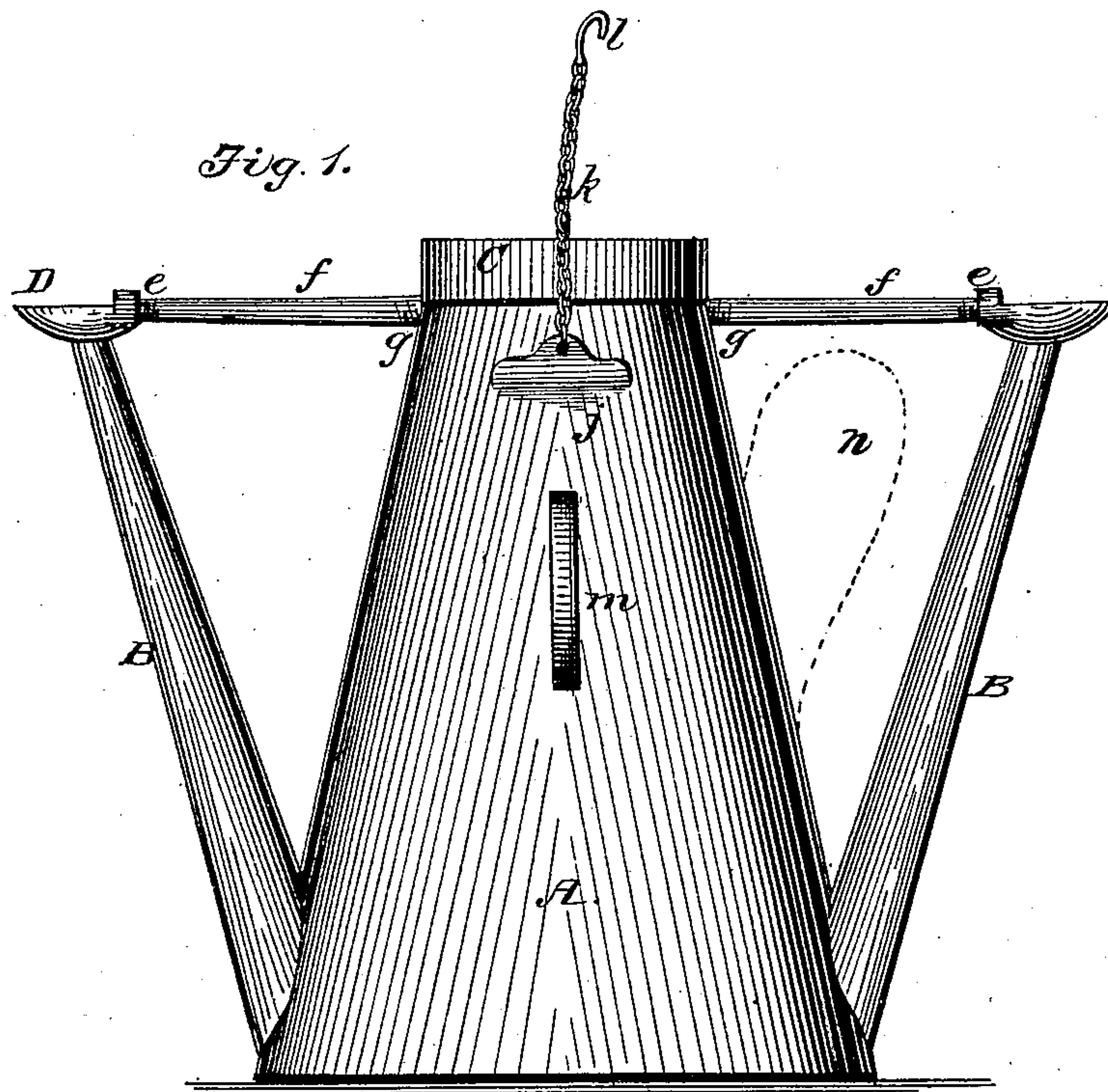


(No Model.)

J. L. FORSAITH.  
Lamp.

No. 238,497.

Patented March 8, 1881.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JAMES L. FORSAITH, OF SHARPSBURG, PENNSYLVANIA.

## LAMP.

SPECIFICATION forming part of Letters Patent No. 238,497, dated March 8, 1881.

Application filed September 18, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES L. FORSAITH, of Sharpsburg, in the county of Allegheny, State of Pennsylvania, have invented a new and  
5 useful Improvement in Lamps; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 My invention relates to an improvement in that class of lamps known as "mill," "derrick," or "torch" lamps; and it consists in a wick-tube arranged at an acute angle to the vertical axis of the body of the lamp, and projecting a short distance above the bottom of a  
15 dished drip-cup secured to the upper end thereof, and a horizontal tube communicating with said dished drip-cup at a short distance above the bottom thereof, and with the body of said  
20 lamp at or near the neck thereof and above the oil-level, whereby the oil is prevented from returning to the lamp and is held in the cup for consumption, all as will be hereinafter fully explained.

25 To enable others skilled in the art with which my invention is most nearly connected to make and use it, I will proceed to describe its construction and operation.

30 In the accompanying drawings, which form part of my specification, Figure 1 is a side elevation of my improvement in mill, derrick, or torch lamp. Fig. 2 is a vertical section of the same.

35 In the accompanying drawings, A represents the body of the lamp, and B the wick-tubes, which project from the body of the lamp. The upper ends of said wick-tubes are about on a plane with the bottom of the lid or cap C. The body of the lamp and the wick-tubes are constructed of sheet-iron and the several joints and  
40 seams brazed. Around the upper end of the wick-tube is secured, by brazing, a small dished drip-cup, D, constructed of malleable iron and thickened up at *e*, and furnished with an opening having screw-threads for the reception of  
45 the outer end of the gas-conducting tube *f*, the other end of which is secured by screw-threads in the body of the lamp, at *g*. The screw-thread on the end of the gas-conducting tube at *e* is right-handed, and on the end  
50 at *g* left-handed, and is secured in place by

slightly springing the wick-tubes B outward and then placing the ends of the gas-conducting tubes in the openings at *e* and *g*, and then turning the tube two or more revolutions. 55 The tube B extends a short distance above the bottom of the dished drip-cup D and about on a plane with the lower edge of the opening in the thickened part *e*, whereby the oil flowing from the upper end of said wick-tube will  
60 be retained in the dished drip-cup D and subjected to the vaporizing action of the flame of the burning wick, as hereinafter more fully explained. The cap or lid C is secured to the body of the lamp by screw-threads, as at *i*, for  
65 the purpose of sealing the lamp and preventing the escape of gas other than that through the gas-conducting tubes *f*. To the body A, at *j*, are attached lugs, to which is attached a small chain, *k*, which terminates in a hook, *l*,  
70 which chain and hook are used for suspending the lamp. To the body A are also attached handles *m*, for manipulating the lamp.

The lamp hereinbefore described may be constructed with a single wick-tube and gas-conducting tube and furnished with a handle, as indicated by the dotted lines *n*. The wick-tube may be corrugated longitudinally, forming grooves, thereby stiffening the wick-tube and conveying back the unconsumed oil. 80

The lamp, being filled with oil and the cap or lid C being secured in position and the wick-tubes furnished with wicks, is then ready for use. When the wicks are lighted any unconsumed oil at the upper end of the wick-tubes  
85 is caught in the dished drip-cups D, and the heat of the flame of the lamp acting thereon converts it into a vapor, which, commingling with the vapor or gas escaping through the gas-conducting tubes *f*, is ignited, thereby increasing the light. 90

The advantage of a lamp constructed as hereinbefore described consists in its being non-explosive and perfectly safe, and the gas generated in the lamp and the unconsumed oil  
95 escaping from the wick-tube, which has hitherto been wasted, are utilized.

I am aware that wick-tubes have been provided with dished drip-cups at their ends, having return-tubes to carry the waste oil back  
100 to the lamp-body; but I am not aware of any construction substantially like mine for con-

veying the gas from the lamp to the point of the burning flame, and at the same time holding the waste oil in the drip-cup to be consumed.

5 Having thus described my improvement, what I claim is—

1. A mill, derrick, or torch lamp having a wick-tube arranged at an acute angle to the vertical axis of the body of the lamp, and projecting a short distance above the bottom of a  
10 dished drip-cup secured to the upper end thereof, and a horizontal gas-conducting tube communicating with said dished drip-cup at a short distance above the bottom thereof, and  
15 with the body of said lamp at or near the neck thereof and above the oil-level, whereby the

oil is prevented from returning to the lamp and is held in the cup for consumption, substantially as and for the purpose herein shown and described.

2. In a mill, derrick, or torch lamp, the combination of body A, provided with a screw-threaded opening, the tube B, having dish D, provided with a screw-threaded opening, and the gas-connecting tube, provided with right  
25 and left hand screw-threads *e g*, substantially as and for the purpose herein shown and described.

J. L. FORSAITH.

Witnesses:

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