

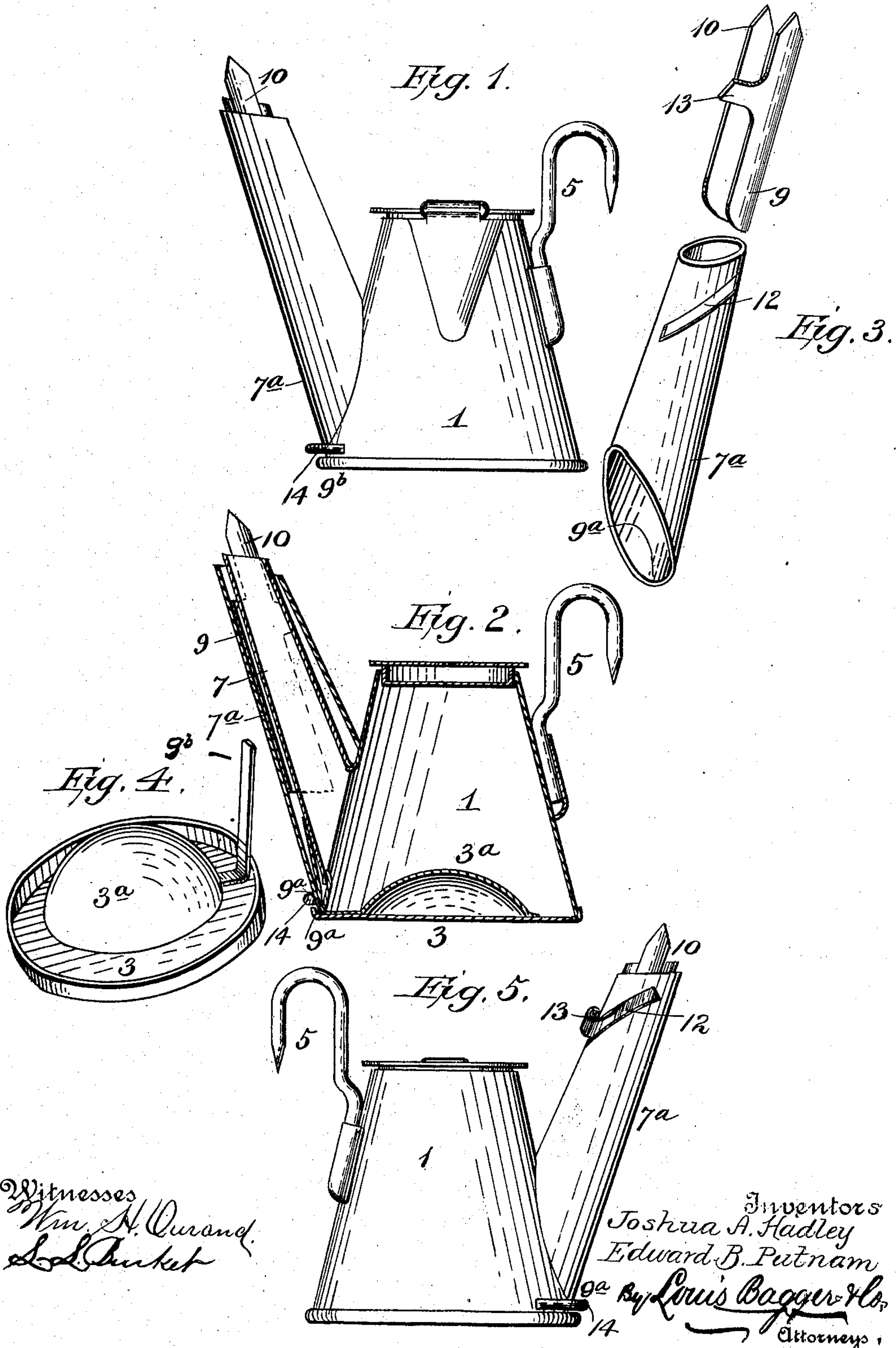
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J. A. HADLEY & E. B. PUTNAM.
MINER'S LAMP.

APPLICATION FILED JULY 31, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSHUA A. HADLEY, OF BRAZIL, INDIANA, AND EDWARD B. PUTNAM,
OF CARBONDALE, ILLINOIS.

MINER'S LAMP.

SPECIFICATION forming part of Letters Patent No. 757,189, dated April 12, 1904.

Application filed July 31, 1903. Serial No. 167,738. (No model.)

To all whom it may concern:

Be it known that we, JOSHUA A. HADLEY, residing at Brazil, in the county of Clay and State of Indiana, and EDWARD B. PUTNAM, residing at Carbondale, in the county of Jackson, State of Illinois, citizens of the United States, have invented new and useful Improvements in Miners' Lamps, of which the following is a specification.

Our invention relates to miners' oil-burning lamps; and the object of the same is to construct a lamp for burning heavy oils.

The simple and novel construction employed by us in carrying out our invention is fully described in this specification, and more particularly pointed out in the claims and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of our lamp. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a detail of the heater. Fig. 4 is a detail of the bottom of the oil-receptacle and conducting-tongue or extension. Fig. 5 is an opposite side elevation from that disclosed by Fig. 1.

In carrying out our invention we employ a receptacle 1, holding oil, wax, or other petroleum products, preferably of the outline contour shown, being more or less tapering upwardly and oblong in horizontal section, with somewhat flattened lateral portions and rounded front and rear walls. The bottom portion of said receptacle while being flat, as at 3, has also an inner conical or raised portion 3^a, preferably of copper or other good heat-conductor, thus producing a chamber or confined space at that point, by the heating of which, as presently seen, a vacuum will be created therein and the receptacle contents be prevented from becoming chilled from the resting of the receptacle upon the damp earth or surface. Said receptacle is suitably provided with a hook 5, as usual, for the convenient attachment of the lamp, of which it forms a part, to the miner's hat. Said receptacle is also provided with a wick-spout-like tube 7, inclining upwardly and outwardly and having its upper end preferably arranged in a plane beyond the top of said re-

ceptacle, the wick 8 being suitably placed therein to support, in connection with the contents of said receptacle, combustion when a flame is produced at the upper end of said tube.

Arranged externally of the tube 7 and spaced a short distance therefrom with its lower flared end soldered or brazed to the receptacle 1 is a second correspondingly-shaped tube or spout 7^a, and within the space between said tubes is slidably arranged what may be termed a "heater" 9, preferably of copper or other good heat-conducting metal. It may be tubular or semitubular, with its lower end terminal 9^a arranged in contact with an upward extension or elongation 9^b of the conical bottom member 4, while its upper end has preferably two or a plurality of heating points or terminals 10, extending into the wick-flame to transmit, as is apparent, the heat thereof to said member, and thus produce a vacuum within the chamber therebelow, above referred to and for the purpose stated. Said heater has projecting therefrom, through a diagonal slot 12 in the tube 7^a, a finger-piece or regulator 13, by the suitable actuation of which said heater can be adjusted with relation to the wick-flame so as to vary the heat-transmitting action thereof to said bottom member and vacuum-chamber as the requirements of the circumstances may demand, as will be readily appreciated.

Around the forward edge of the receptacle 1, just below the outer spout or tube 7^a, is soldered or brazed an arcuate stout wire 14, reinforcing it at that point to provide for receiving the blow or force which would otherwise be received directly upon the receptacle or its bottom in striking the surface therewith, as is the habit of the miner in jarring the contents of the receptacle.

It will be understood that we may make the lamp in various sizes from the ordinary miner's-lamp size to railroad-torch size.

We do not wish to be limited as to details of construction, as these may be modified in many particulars without departing from the spirit of our invention.

Having thus fully described our invention,

what we claim as new, and desire to secure by Letters Patent, is—

1. In a lamp, the combination of a receptacle having a raised bottom member, a wick-tube
5 connected to said receptacle, a heater adjust-
ably mounted on said wick-tube and adapted
to extend into the wick-flame, and means ar-
ranged between said raised bottom member
and said heater, for the purpose aforesaid.
- 10 2. In a lamp, the combination of a recepta-
cle, a wick-tube connected to said receptacle,
a slidingly-mounted heater provided with a
finger-piece regulator and a spout surround-
ing said heater and having a slot therein to ac-
15 commodate said thumb-piece regulator and
means arranged between said heater and the
bottom of said receptacle adapted to transmit
heat to said bottom.
- 20 3. In a lamp, the combination of a receptacle
having a wick-tube, a heater arranged upon
said tube and adapted to engage the wick-flame,
said receptacle having a vacuum-chamber be-
tween bottom members thereof, and means
25 adapted to transmit the heat from said heater
to said chamber.

4. In a lamp, the combination of a receptacle
having a wick-tube, connecting therewith,
near its bottom, a heater arranged upon said
wick-tube and adapted to engage the wick-
flame, said receptacle having a flat bottom 30
member and a conical bottom member said
members forming a vacuum-chamber, and
means adapted to transmit the heat from said
heater to said chamber.

5. In a lamp, the combination of a receptacle 35
having a wick-tube connecting therewith, near
its bottom, a heater mounted upon said tube
and having engagement with the wick-flame,
said receptacle having a flat bottom member
and a conical bottom member having an up- 40
ward extension or elongation contacting with
said heater.

In testimony whereof we have hereunto set
our hands in presence of two subscribing wit-
nesses.

JOSHUA A. HADLEY.
EDWARD B. PUTNAM.

Witnesses:

L. M. OVERTON,
S. E. CONCH.