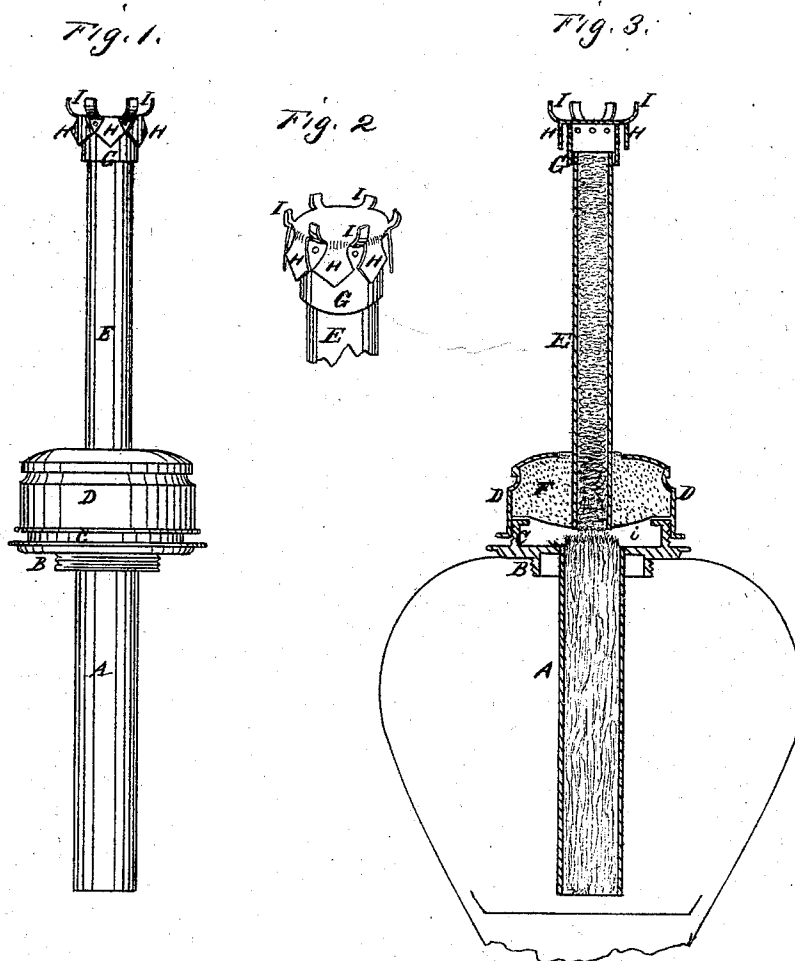


W. HATHAWAY.
Lamp-Burners.

No. 147,496.

Patented Feb. 17, 1874.



Witnesses

John L. Boone
C. Milton Richardson

Welcome Hathaway
 by Sewey &
 Atty's

UNITED STATES PATENT OFFICE.

WELCOME HATHAWAY, OF OPHIR, CALIFORNIA.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **147,496**, dated February 17, 1874; application filed December 18, 1873.

To all whom it may concern:

Be it known that I, WELCOME HATHAWAY, of Ophir, county of Placer, State of California, have invented an Improved Burner for Lamps; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention relates to an improved burner which is especially adapted for burning gasoline and other light products of a similar nature, such as are brought to the burner and vaporized previous to being ignited.

My invention consists in a cap or coupling for holding the upper part of the wick-tube, and so constructed that it contains a removable non-conducting substance and a small gas-chamber. It also consists in a peculiarly-constructed burner, as more fully hereinafter described. A combination of inflammable and non-inflammable substances is employed to conduct the gasoline or other fluid to the vaporizer and burner.

Referring to the accompanying drawing for a more complete explanation of my invention, Figure 1 is a side elevation of my device. Fig. 2 is a view of the burner or cap. Fig. 3 is a sectional elevation of the device.

A is the tube, which is made of such length that it will reach from near the bottom of the lamp or receptacle for the liquid to a point just above the top of it. A screw-cap, B, fits into the top of the lamp in the ordinary manner, and just above this screw is another screw-cap, C, which forms the lower part of the coupling. The upper part of the coupling D fits down upon the screw C, and has a hole through its top somewhat larger than the tube E. The interior of the part D is closely filled by a cork, F, through which the tube E passes, fitting closely, and it is thus prevented from touching the sides of the coupling D. This makes the device non-conducting, and no matter how hot the tube E may become, the heat will not pass down so as to affect the tube A. A broad flange is formed upon the top of the screw C, and when the parts are screwed together, a tight joint will be formed by the cork which presses upon the flange, and a small gas-chamber, *i*, left beneath the cork.

The lower tube A may be filled with cotton-wicking; but the upper tube E should be filled with asbestos, which will not be acted upon by heat, the asbestos just resting upon the wick when the parts are united.

The burner or vaporizer G is placed at the top of the tube E, and consists of a cap which fits upon the top of the tube. This cap is closed at the top, and has a series of horizontal holes around it near the top. A series of lips, H, are formed to bend down from the top all around the cap and between the jet-openings, so that each jet passes out between two of these lips, and is thus protected from air-currents, and while the lamp is being carried from place to place, so that it is not easily extinguished. Above the jet-openings are a series of lugs, I, which may be bent upward or more horizontally if it is necessary to have a greater heat for more perfect vaporization and combustion; and by this construction I am enabled to make my burner adjustable.

Different caps of various sizes and shapes may be employed for larger or smaller lamps; but by means of the lips H and adjustable projections I, I am always enabled to regulate and protect the flame.

The coupling C D, with its non-conducting packing, renders it impossible to overheat the liquid in the lamp, while, by extending the tube A to the bottom of the lamp inside, it will not be possible to ignite the liquid from the burner.

By making the tube E somewhat smaller than the tube A, the liquid will be carried to the burner more readily.

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

1. The burner G, consisting of the horizontally-perforated cap provided with the lips H and the adjustable lugs I, substantially as and for the purpose herein described.

2. The bisected wick-tube A E, in combination with the flanged screw-cup C, cap D, and removable non-conducting material F, constructed and arranged to form the gas-chamber *i*, as set forth.

In witness whereof I hereunto set my hand and seal.

WELCOME HATHAWAY. [L. S.]

Witnesses:

JOHN L. BOONE,

C. MILTON RICHARDSON,