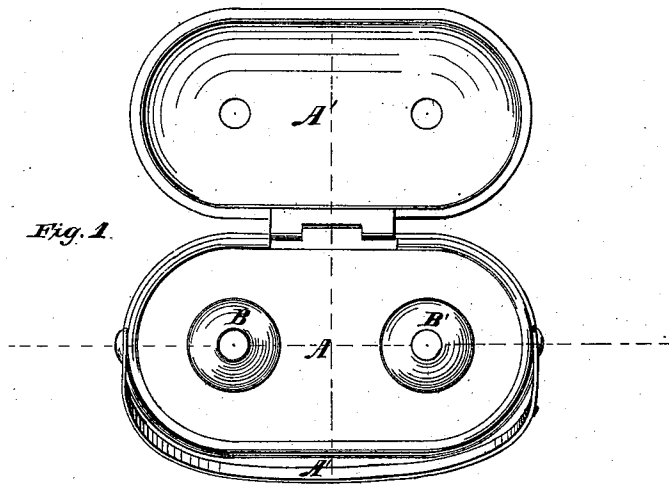
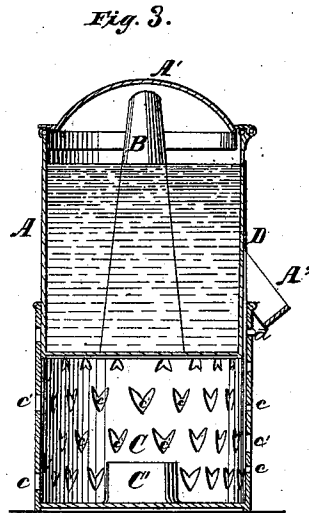
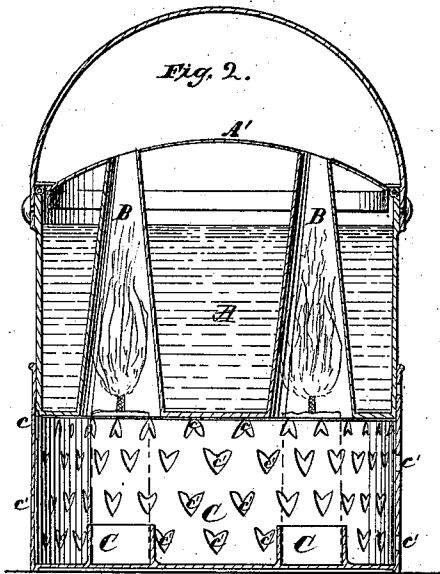


W. N. Hancock

Lamp Store,

No. 46,665,

Patented Mar. 7, 1865



Witnesses:
G. D. Smith
Edward H. Knight

Inventor:
W. N. Hancock
By Edmund
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM N. HANCOCK, OF SALEM, NEW JERSEY.

PORTABLE HEATER FOR LIQUIDS.

Specification forming part of Letters Patent No. 46,665, dated March 7, 1865.

To all whom it may concern:

Be it known that I, WILLIAM N. HANCOCK, of the city and county of Salem, in the State of New Jersey, have invented a new and Improved Heater for Liquids; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan of my improved liquid-heater with the lid thrown open. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a vertical transverse section in the line *x x*.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to an apparatus of simple, cheap, and very compact construction, especially adapted for the use of soldiers on picket or like duty for heating coffee, water, or any beverage or stimulant. The device, when in condition for transportation, will occupy a very small space, and it is intended to be adapted to be readily carried about in the pocket of the great coat of the soldier.

To enable others skilled in the art to which my invention appertains to fully understand and use the same, I will proceed to describe its construction and operation.

In the accompanying drawings, A represents a vessel of any suitable capacity. The vessel represented is oblong or elliptical in its horizontal section, but its form may of course be varied to suit the taste of the user. Said vessel is provided with tubes or flues, B B, of conical or other form, occupying positions over holes in the bottom of the containing-vessel. In the lid A' of the vessel A are holes, through which may escape the products of combustion which ascend through the tubes B.

C is a base or support, the same also constituting a case in which the vessel A may be supported at any height by means of an elastic arm or spring, D, on the lower end of which is a pin or projection, *d*, to be inserted into either of a series of apertures, *c*, in the side of the base C.

In the base C are sockets C' for candles, the flames of which pass up into the tubes B, and thus heat the contents of the vessel A. Instead of the candles, I propose to use a small oil-lamp fixed within the base C in any desirable manner, and, as the size and consequently the heating capacity of such flame may be increased or diminished, it will only be necessary to employ one tube, B, in connection therewith. This method of heating liquid on a small scale will be found expeditious as well as economical. When candles are used, the vertical adjustment of the vessel A within the base C is rendered requisite to maintain an equal degree of heat as the length of the candles diminish. Any combustible material may be made use of in the absence of candles or lamps. The candle sockets C' are adapted to occupy the lower ends of the tubes B when the vessel A is pushed down until its bottom rests upon that of the base C, in which condition the apparatus may be carried with convenience. By pressing inward the spring D, the pin *d* may be disengaged from the side of the base C, so as to permit the position of the vessel A to be varied.

The base C has a number of openings, *c'*, which may be registered in any suitable manner to regulate the air which circulates through the base C and prevent the light from being observed by enemies, when the device is in use by soldiers on picket duty.

A² is a bail or handle, the application of which is altogether optional.

Having thus described my invention, the following is what I claim as new and desire to secure by Letters Patent:

The combination of the heater A, provided with tubes B, and the base C, provided with sockets C', the heater being adapted to slide up and down within the base and retained at any desirable height, substantially as and for the purposes specified.

WM. N. HANCOCK.

Witnesses:

C. D. SMITH,
OCTAVIUS KNIGHT.