L. E. HICKS.

Lamp.

No. 3,488. Patented March 16, 1844.

Fig: 1.

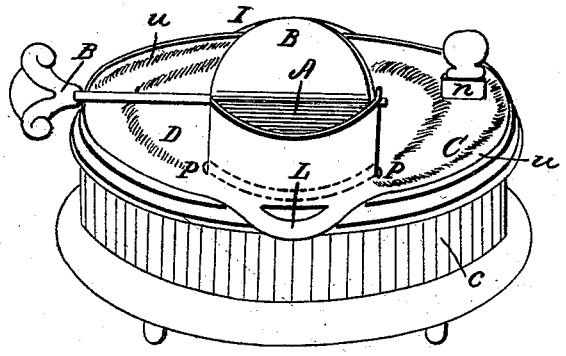
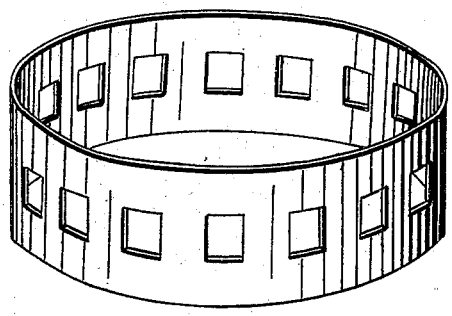


Fig: 2.



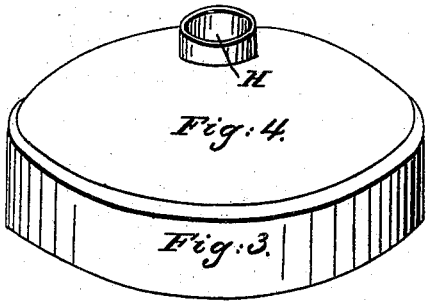


Fig: 4.

Fig: 3.

Witnesses:
S. W. Grimes
E. B. Chaffee.

Inventor:
L. E. Hicks.

UNITED STATES PATENT OFFICE.

L. E. HICKS, OF MIDDLETOWN, CONN., ASSIGNOR TO G. S. F. GRISWOLD.

IMPROVEMENT IN ALCOHOL-LAMPS FOR MEDICATED VAPOR-BATHS.

Specification forming part of Letters Patent No. **3,488**, dated March 16, 1844; antedated December 15, 1843.

To all whom it may concern:

Be it known that I, LUCIEN E. HICKS, of the city of Middletown, State of Connecticut, have invented and applied to use a new and useful improvement in the mode of regulating the burning of alcohol or other inflammable liquids when used for vapor-bathing or other purposes, of which the following is a specification.

In order to illustrate the nature of my said improvement, it will be necessary to describe an article used in vapor-bathing as a whole, and which contains and whereby I can best set forth my said improvement. I will therefore refer to the drawings accompanying this specification.

Figure 1 represents the base of said article or lamp, it being about nine inches in diameter by two inches in depth, made of cast-iron, and standing on legs.

A is an aperture two inches deep and three and one-half inches diameter, being in the center of the lamp or circular chamber wherein alcohol is burned.

P P are small communications, indicated in the drawings at cavity D, above the plate, but are cast on the under side opposite the marks. They are one-fourth inch in diameter, extending from aperture A to the chamber *c c*, for conducting the inflammable liquid to the aperture A.

B B is a thin cast-iron valve three and one-half inches in diameter, with a thumb-piece and rod attached. It is placed at the top of the aperture A, where it is made to revolve, so as to regulate the strength of blaze and amount of heat. If the valve be placed perpendicular and a match applied, the inflammable liquid burns free. If turned horizontally, the blaze is at once extinguished.

c c is the circular chamber for containing the fluids. It is constructed around the aperture A at a distance of two inches, there being a cavity, D, intervening, for keeping the alcohol contained in chamber *c c* cool. The top of this chamber is crowning near the outer edge, and on the top of this chamber I have a crease or groove one-fourth inch in depth, as shown at *u u*, for receiving the flat ring, Fig. 2.

n is a small aperture on the top of fountain or chamber *c c*, for discharging the contents of said chamber, its diameter being one-fourth inch, and having a cast-iron stopper to fit. The bottom of this chamber *c c* should be nine inches diameter, the inside being somewhat dishing, to allow all the liquid to drain from the chamber. The sides rise two inches perpendicular, and connect with the top, thus forming a reservoir that will hold one quart.

Fig. 2 is a flat ring three and one-half inches wide, its diameter being eight and one-half inches, and made of sheet-iron, having holes through it on every side for admitting air. This ring supports the evaporating-pan above.

Fig. 3 is a cast-iron pan for evaporating water and receiving various medicaments to be volatilized by heat. Its diameter is eight and one-half inches and depth averaging one and one-half inch, supported by the ring, Fig. 2.

Fig. 4 is a cast-iron cover made crowning and to fit the evaporating-pan, Fig. 3.

H is a small hole in the center, one inch diameter, having a small projection to receive a pipe or hose for conducting off the products of the pan when required.

In order to produce vapor, &c., for bathing, supply the lamp with alcohol or other inflammable liquid, and the pan with water or medicaments, set fire to the liquid in aperture A, and fix the ring, Fig. 2, upon the chamber, setting its lower edge in the groove *u u*. Then set the pan, Fig. 3, upon the top of the ring, where it will fit. Next put on the cover, Fig. 4. Place the whole under a stool or chair. The patient then takes a seat, throwing around the whole a blanket or curtain. In a few minutes the air becomes charged by the heat of the blaze, combined with the evaporating water, &c., so as to produce profuse sweating.

Let it be here remembered that as the consumption of the liquid goes on in the aperture A a supply is kept up through the communications P P from the reservoir or chamber *c c*, and that the space or cavity D, separating the main body of the liquid from that on fire, tends to keep it cool. This is necessary, for if the whole body of liquid were hot ignition would go on too rapidly. The amount of blaze and degree of heat can be regulated and graduated by the action of said valve B B opening and closing.

The aforesaid construction of the chamber will secure the liquid in the chamber or reservoir from ignition.

The aperture A should be similar in form and size to that described, in order to secure a sufficient amount of heat for a large person.

Although the size of the aperture should be

made or depend much upon the use for which it is designed, a plurality of apertures and valves, however, may be constructed and set around the lamp or aperture at different points, instead of one aperture, and the valves may be of different kinds to suit—to wit, sliding, rotary, toad-stool, divided, &c., or a set of valves, which would answer the purpose may be constructed by inserting a second ring within the ring represented by Fig. 2, having corresponding holes, to be closed all on the same principle; but the construction I have described and adopted seems to me to be far the best.

What I claim as my invention and improvement, and wish to secure by Letters Patent, is—

The method of regulating the burning of alcohol or other inflammable liquids by means of the application of apertures and valves, as above set forth and described, when applied to vapor-bathing or other purposes separately, and also in combination with a chamber or reservoir, *c c*, for holding the inflammable liquid that is to be conducted and burned at the aperture A, and gradually supplying the same therewith during the process of combustion, constructed and operating as above described, so as to prevent ignition.

Dated at Middletown, State of Connecticut, this 27th day of February, A. D. 1844.

L. E. HICKS.

Witnesses:

CURTISS BACON,

DENNIS SAGE.