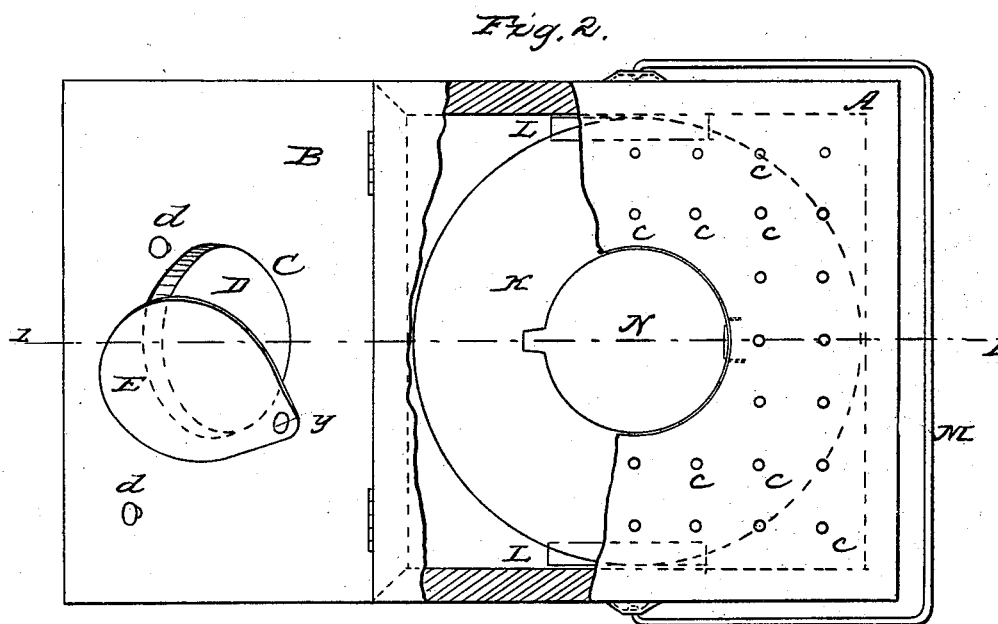
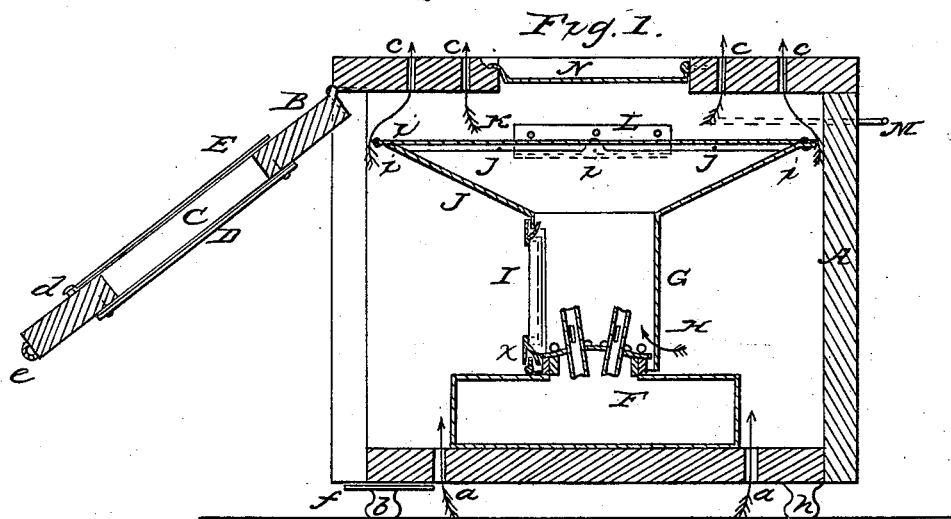


A. ECKERT.
Foot Warmer.

No. 46,649.

Patented March 7, 1865.



Witnesses:
Wm. Brown.
Geo. Tusch.

Inventor:
Augustus Eckert
per Munn & Co.
attorneys.

UNITED STATES PATENT OFFICE.

AUGUSTUS ECKERT, OF TRENTON, OHIO.

IMPROVED FOOT-WARMER.

Specification forming part of Letters Patent No. 46,649, dated March 7, 1865.

To all whom it may concern:

Be it known that I, AUGUSTUS ECKERT, of Trenton, in the county of Butler and State of Ohio, have invented a new and useful Improvement in Foot-Warmers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an elevation of a vertical section of a foot-warmer made after my invention, taken on the line 1 1 of Fig. 2. Fig. 2 is a plan thereof, part of the cover being shown broken away and the door partly raised.

Similar letters of reference indicate like parts.

This invention consists in an arrangement of parts whereby a foot-stove or foot-warmer is made to combine in itself a lantern and a nursing or cooking lamp also.

A represents the body of the foot-warmer, its form in this example of my invention being rectangular. It is raised above the ground and supported upon suitable feet, *b*, and its bottom is perforated with numerous holes, *a*, to supply air to the lamp within. One of the sides of the foot-warmer is formed into a door, B, which is hinged at top and is closed tightly by means of hooks *f* and eyes *e*.

An opening or window, G, of suitable diameter, is made in the door, and is covered on the inside by a plate, D, of mica or other transparent material, and on the outside by an opaque shutter, E. The shutter E swings upon a pin, *y*, and can be locked when either open or shut by means of buttons *d*. M is a bail by which the apparatus may be moved and carried.

The upper surface or cover of the foot-warmer is perforated with numerous perforations, *c*, for the escape of the products of combustion.

F represents a lamp, which may be of any ordinary construction, the one here shown being prepared for burning oil or lard. A chimney or pipe, G, which may be of tin, rests upon the top of the lamp, and is kept from lateral displacement thereon by four or more guides, *x*, soldered to the top of the lamp.

The sides of the chimney are perforated near its lower edge by holes H, which must be sufficiently numerous to admit a good supply of air to the burning wick. A door, I, glazed with mica or other transparent material, is made in the said chimney, on that side opposite to the door B, to transmit light and to give access to the wick by removing the door.

The top of the chimney G is joined to an annular plate, J, which rises therefrom at an angle of about thirty degrees and extends nearly to the sides of the foot-warmer. Ears *i*, four or more in number, are formed on its circumference, by which it is connected to the circumference of a circular plate, K, of greater diameter. The plates are connected together in such wise as to leave a space, *j*, between them, interrupted only by the said ears to allow the escape of the products of combustion.

The outer edges of the plate K are held steady by means of guides L, which project from the sides of the box A, either above or beneath the said plate, so as to keep it from canting over when the foot-warmer is held in an angular position.

It will be seen that the chamber formed by the plates J and K is a combustion-chamber. The products of combustion arising from the lamp come in contact with the plate K, and are turned back, so as to mingle with succeeding currents, whose heat causes them to be more perfectly consumed before the gases escape by the channel *j*.

An opening is made in the cover of the apparatus, and a hinged cover, N, is fitted thereto. When the cover is down, its surface is depressed, as seen in Fig. 1, below the surface of the box, so as to bring it as near as possible to the top of the combustion-chamber inclosed by the plates K and J, and also to prevent any obstruction therefrom on the top of the box.

When the cover N is raised, a vessel, whose contents are to be heated, may be set directly upon the plate K, whose temperature will be sufficient to enable the apparatus to be used as a nurse and heating lamp.

By swinging the opaque cover E open the apparatus may be used as a lantern, and whenever the lamp is lighted the heat imparted to the plate K and the hot currents issuing

through the perforations *c* in the top of the box will make it very efficient as a foot-warmer.

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

In combination with the casing *A* and door *B*, the lamp *F*, chimney *G*, flaring plate *J*,

horizontal plate *K*, and channels *j j*, constructed, arranged, and operating as and for the purposes described.

AUGUSTUS ECKERT.

Witnesses:

B. D. BOLT,

B. W. HARTLEY.