

S. HUNT.
Foot Warmer.

No. 34,501.

Patented Feb. 25, 1862.

Fig. 1.

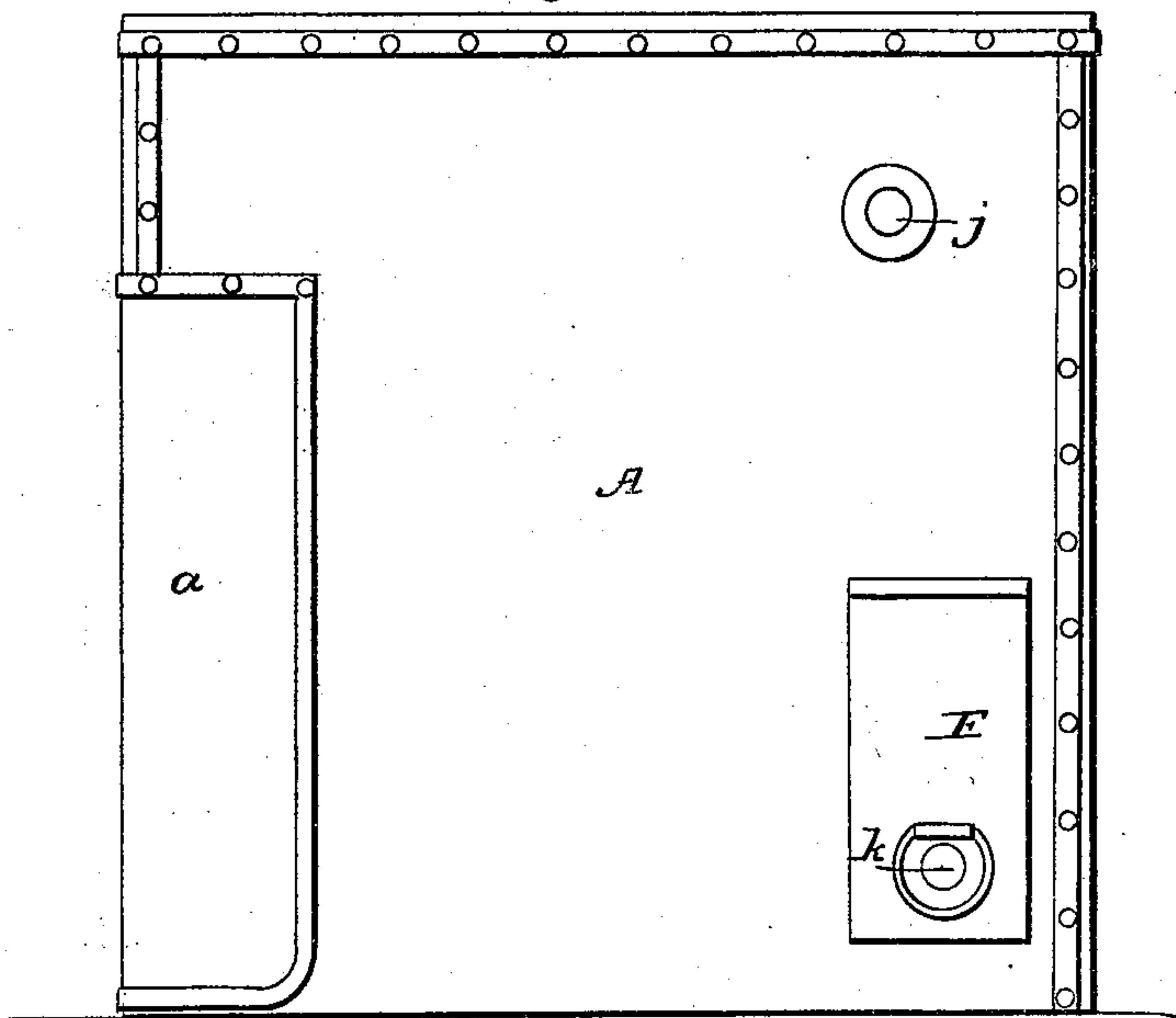
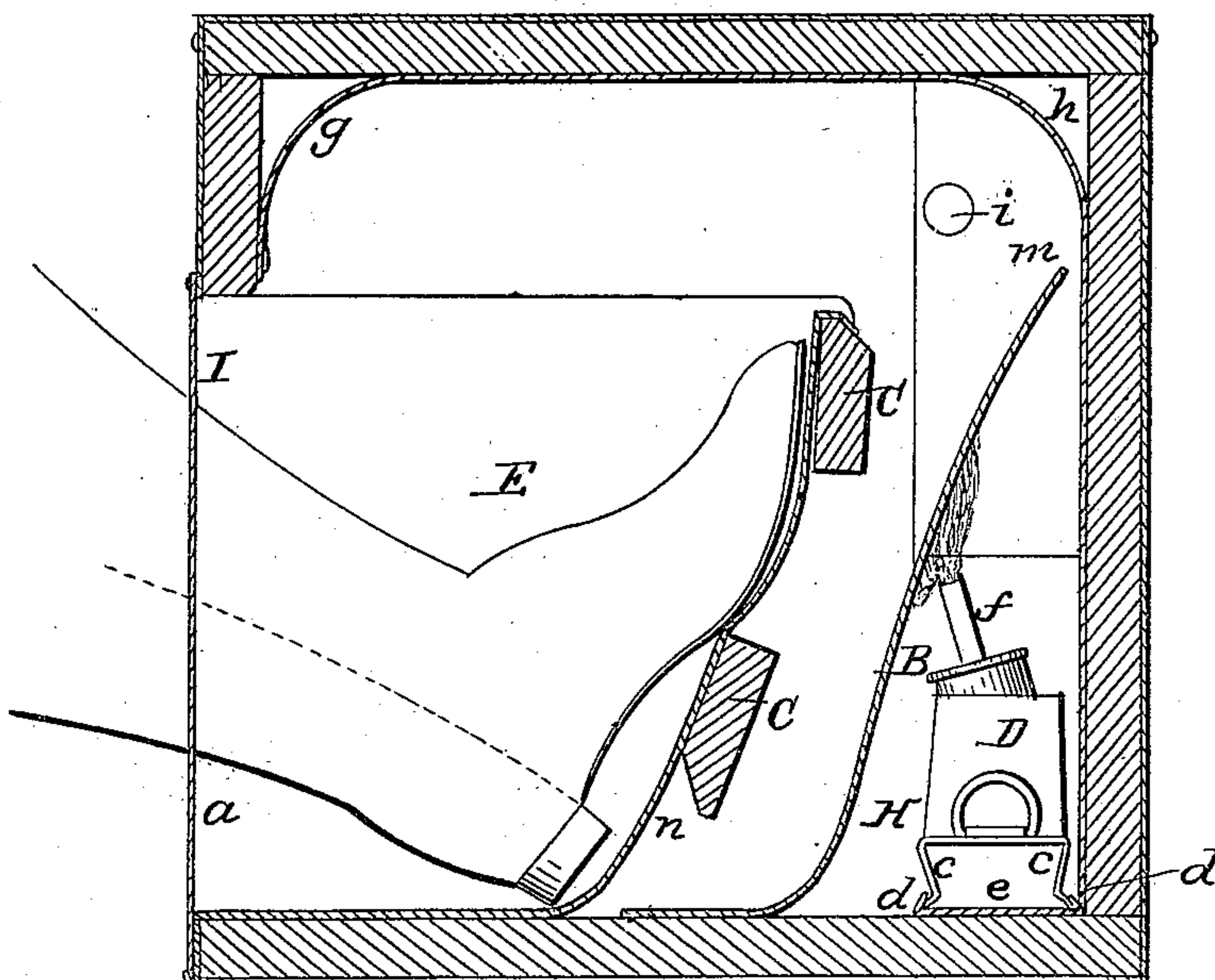


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

SOLOMON HUNT, OF DANVILLE, INDIANA.

IMPROVEMENT IN FOOT-STOVES.

Specification forming part of Letters Patent No. 34,501, dated February 25, 1862.

To all whom it may concern:

Be it known that I, SOLOMON HUNT, of Danville, in the county of Hendricks and State of Indiana, have invented a new and Improved Foot-Warmer; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation of my improved foot-warmer. Fig. 2 is a longitudinal section of the same, the section being taken through the middle.

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

The object of this invention is to obtain a simple, economical, and portable device for warming the feet of a person in any apartment of a dwelling or while traveling in any vehicle, which has the means of generating warmth in itself; and it consists in a peculiar arrangement of a radiator in a box or case in connection with a foot-rest and flame of a spirit-lamp for throwing the heat of the gases from the flame by radiation direct upon the soles of the feet.

It also consists in a peculiar arrangement of reflectors in connection with the radiator and flame of the lamp, whereby the heat not thrown off by radiation and which escapes over the top of the radiator is concentrated in a focus in the center of the foot-chamber, the parts being arranged to operate in such a manner as to insure a just sufficiently-intense heat to warm the feet at the least expense.

To enable others skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a wooden box or case which contains the warming apparatus and which has an opening I in front through which the feet are introduced into the foot-chamber E to be warmed. A curtain *a*, which may be of woolen fabric or any other suitable non-conducting material, is attached to the upper side of this opening and falls over the limbs of the person while the feet are being warmed to save a large amount of heat which otherwise would escape through the opening into the atmosphere and be lost, and it closes the open-

ing entirely when the warmer is not desired for use.

B is a partition of sheet-copper or other good conducting material secured in the back part of the case in an inclined position and forming an apartment therein for a lamp, with a small opening *m* at the top, through which the heat from the gases of the flame not absorbed by the partition and thrown off by radiation passes in contact with the concave reflectors *g h* in the top of the case and is concentrated in a focus about the middle of the foot-chamber. The interior of the case is lined at its back and upper side with polished tin or other non-conducting metal, forming reflectors which in the angles are of concave form.

C C are two strips of wood which extend across the interior of the case and are secured in the sides thereof in front of the partition, forming a support for the feet to prevent their being pressed against the partition, and also to support the lining *n*.

D is a lamp for burning alcohol, which is supported upon and secured in the apartment formed by the partition in the case by flanges *c*, which are bent outward at their lower edges and fit into the introverted flanges *d* of the plate *e*, which is attached to the bottom of the case.

The wick tube or tubes *f* of the lamp are inclined to one side and toward the partition B to allow the flame of the lamp to impinge against the partition about its center. The partition B, being a good conductor, absorbs most of the heat of the gases from the flame and radiates it from its front or opposite side toward the soles of the feet, which are separated therefrom only by a lining of woolen or other suitable fabric *n*. That portion of the heat which is not absorbed by the partition and thrown off by radiation escapes over the upper end of the same, where it impinges against the concave reflectors *g h*, and is thrown back into the foot-chamber E, producing a focus of heat about the center of the same. The smoke and unconsumed gases of combustion escape at the flues *i j* on opposite sides of the case.

The lamp is introduced into the apartment H in the back part of the case through an

opening in one side, which is closed by a hinged door F.

The case A is furnished on each side and near the back end and bottom with draft-openings *k*, through which the air passes into the apartment to feed the flame of the lamp. The air rushing through these openings in its passage to the flame comes in contact with the partition and becomes heated, thus insuring a more perfect combustion of the gases and a corresponding increase in the amount of heat attained from a given amount of fuel consumed.

The interior of the foot-chamber is designed to be lined with woolen or other suitable fabric as high up as the top of the opening in front and above it with polished tin or other non-conducting material.

The outside of the case may be covered with any suitable non-conducting material of

either fabric or metal, and it may be stuffed on top and ornamented to form a foot-stool or ottoman for the parlor.

The within-described warmer is a most admirable contrivance for sick or invalid persons requiring artificial heat for the feet and for seamstresses, clerks, and others whose sedentary habits produce obstructed circulation, cold feet, and consequent ill health.

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

The combination of the radiator B, reflectors *g h*, and foot-supports C C with the lamp D, when operating in the manner substantially as described, for the purpose set forth.
SOLOMON HUNT.

Witnesses:

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