No. 641,760. Patented Jan. 23, 1900.

C. CLARKE.

FOOT WARMER AND REST.

(Application filed May 9, 1899.)

(No Model.)

Fig I,

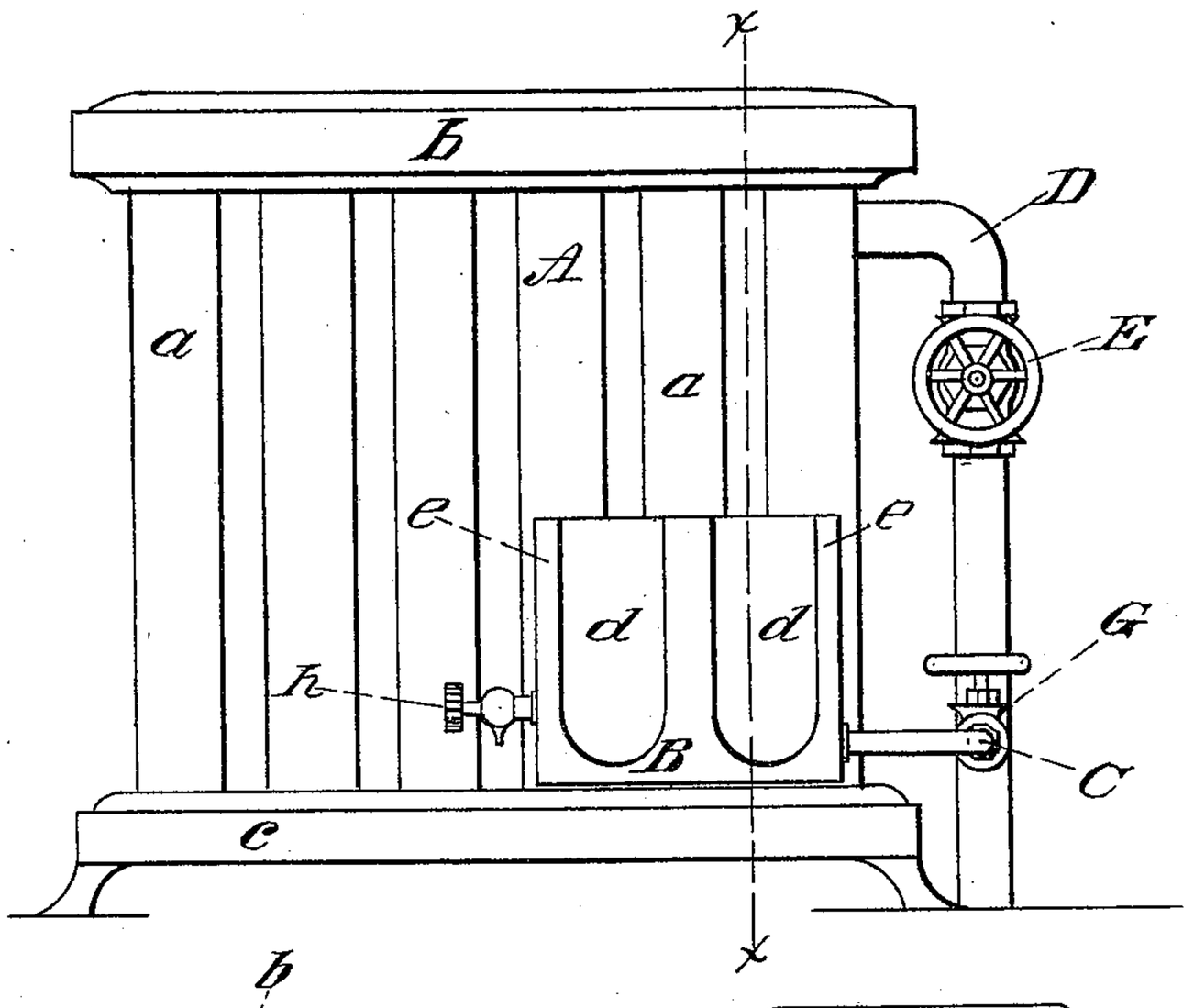


Fig II,

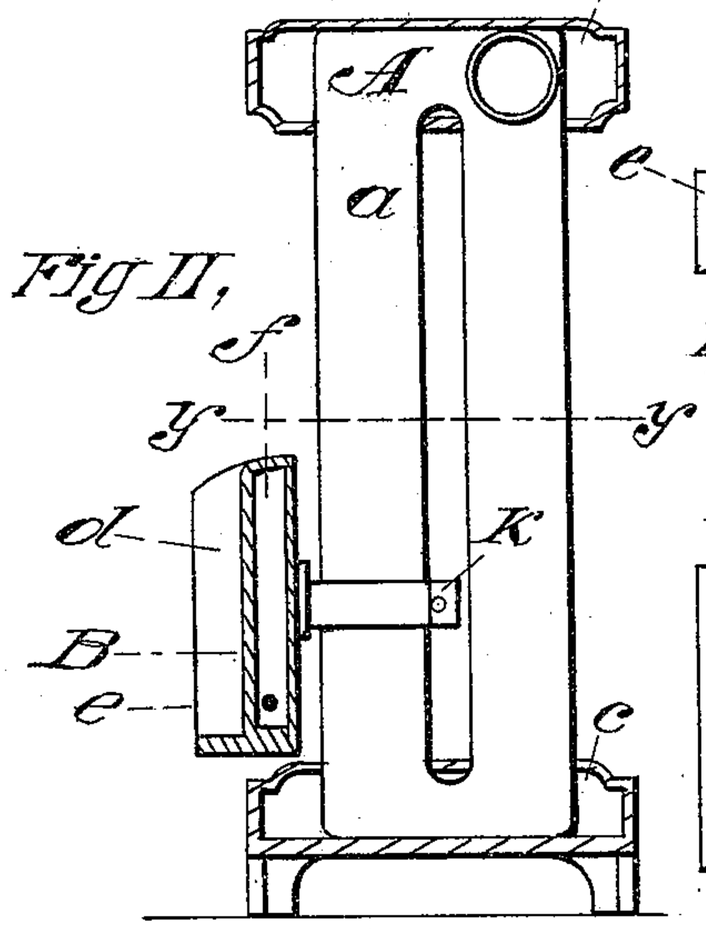


Fig. IV,

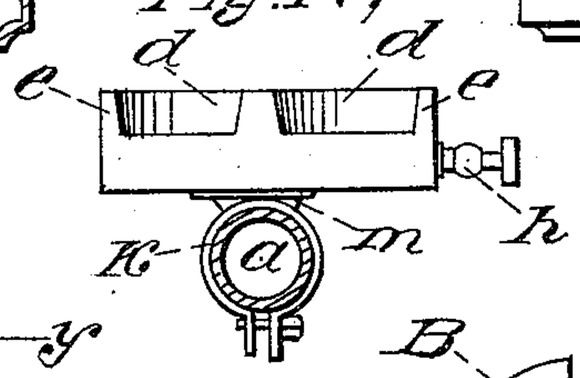


Fig V,

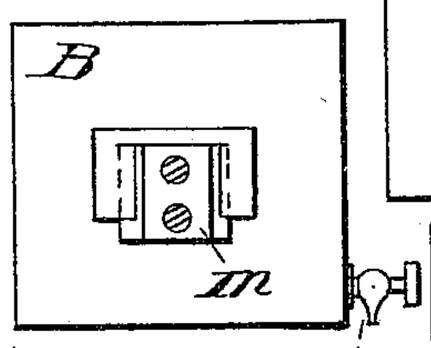


Fig VI,

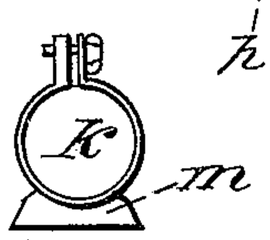
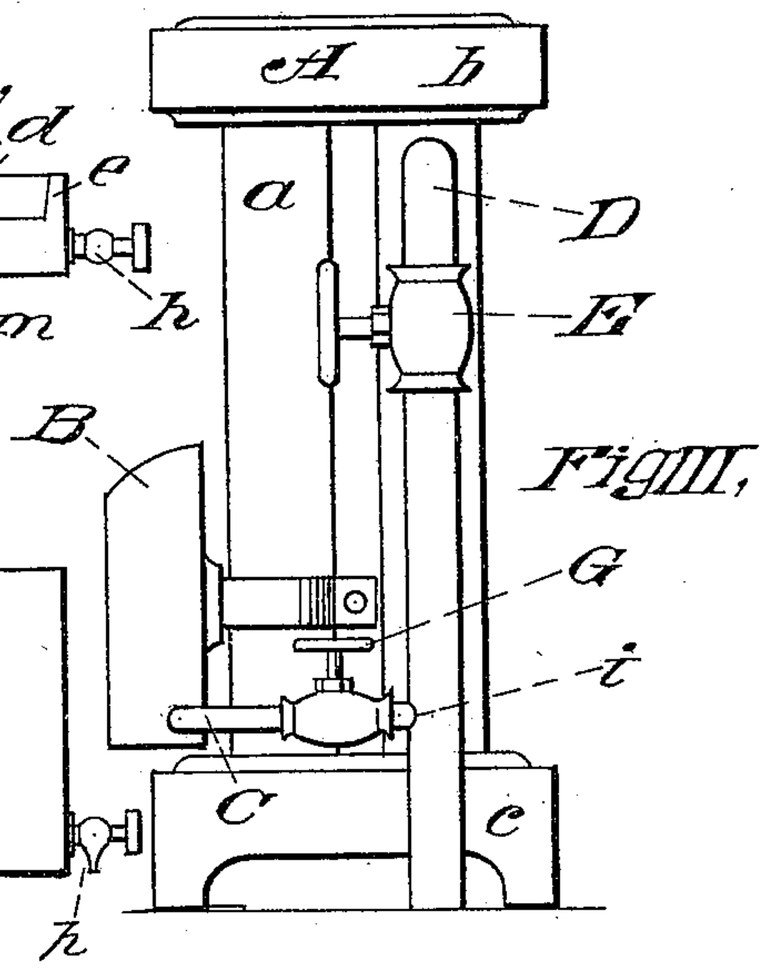


Fig III,



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UNITED STATES PATENT OFFICE.

CHRISTOPHER CLARKE, OF NORTHAMPTON, MASSACHUSETTS.

FOOT WARMER AND REST.

SPECIFICATION forming part of Letters Patent No. 641,760, dated January 23, 1900.

Application filed May 9, 1899. Serial No. 716,106. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER CLARKE, a citizen of the United States, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Foot Warmers and Rests, of which the following is a specification, reference being had therein to the accompanying drawings.

My improvements relate to an improved foot warmer and rest to be combined with a heat-radiator and adapted to have its temperature regulated to a fixed degree independently of the radiator and also adapted to retain the feet supported therein from any lateral movement; and the invention consists in the combination and arrangement as hereinafter described, and more fully pointed out in the claims.

My invention is fully illustrated in the accompanying drawings, in which—

Figure I is a front elevation of a radiator having my device combined therewith. Fig. II is a transverse sectional elevation on the dotted line *x x* of Fig. I. Fig. III is an end elevation of the radiator and device combined. Fig. IV is a top view of the device clamped to a pipe of the radiator. Fig. V is a rear elevation of the device in part, showing a provision for its attachment to the band for clamping it to the radiator; and Fig. VI is a plan view of the clamp-band.

Referring to the drawings, A is the radiator of the usual construction and comprising a series of vertical pipes *a*, with a circulation provided between them and held between a top *b* and bottom support *c*.

D is the main heat-supply pipe to the radiator, and E is the valve therein for turning on or cutting off the heat-supply.

The foot warmer and rest comprises a metallic case B, flat upon its rear surface, divided upon its front surface into two compartments *d d* or multiples thereof, defined and separated from each other by side walls or flanges *e e*, and adapted to conform to the soles and heels of shoes resting therein, and a cavity *f* between the rear wall and the foot-surfaces of the compartments *d d* and adapted for a heating-chamber for the device.

The foot-compartments *d d*, while open at the top, as seen in Figs. II and IV, are at their sides and bottoms walled in by the flanges *e e*, which at the bottom, as shown in Fig. I, are concave to conform to the contour of a shoe-heel, so that feet resting in the device are supported at the heel and prevented by the side walls from turning or sliding off even though the owner should be asleep.

Upon one end of the device and communicating with cavity *f* is a cock *h* for drawing off the water from the cavity, and at the opposite end from cock *h* and also communicating with the cavity is a steam or hot-water pipe C for heating the warmer B.

The warmer supply-pipe C is carried to make connection with the radiator heat-pipe D at *i*, as more particularly shown in Fig. III, and intermediate to the warmer B and pipe D is a valve G for admitting heat from the main supply-pipe to the warmer.

The warmer screwed at one end to pipe C is clamped from its rear side to a pipe of the radiator to have its back set off from the radiator to leave a clear air-space between the warmer and the radiator. This is regarded as important, and to more perfectly insulate the warmer from heat by direct contact with the radiator a block *m* of non-conducting material is interposed between the back of the warmer and the pipe to which it is clamped.

Fig. V shows the block *m* removed from the clamp-band *k*, to which it is permanently attached, as shown in Fig. VI, by rivets and is shown removed to expose a plan view, deemed sufficient, of a socket V-shaped in cross-section, into which the block of similar cross-section is slid to make an attachment of the clamp-band to the warmer.

The warmer B is preferably formed of metal cast in one piece, with the socket for the insulating-block *m* forming an integral part thereof. The clamp-band *k* has its free ends drawn together by the usual thumb-nut and makes an efficient support to the warmer, though in the case of more than one set of foot-compartments *d d* being embraced in a warmer it would be advisable to employ two clamps to support the device.

Fig. IV shows a pipe in transverse section, taken on the dotted line *y y* of Fig. II, embraced by the clamp holding the warmer thereto.

It will be seen that the pipe C to the warmer

communicates with the main supply-pipe D of the radiator outside of the main supply-valve E, so that by means of valve G the direct admission of steam or hot water can be effected entirely independently of the radiator itself to the warmer, the advantage of which arrangement is that any desired degree of heat may be given to the warmer, which may be heated by the full head of steam or hot water or may be allowed to receive its only heat from radiation from the radiator, with the advantage also of permitting heat to be turned on only to the warmer when, as in autumn or springtime, the radiation of heat from the warmer alone would be all that was comfortable.

By insulating the warmer and removing it by an interval from contact with the radiator an air-space is left between the two which effectually prevents the warmer from becoming hot enough to injure the shoes by burning or burning the feet, as will be done by contact with the radiator itself running full force, while at the same time the warmer when the radiator is at its hottest will by this space and its internal cavity present a foot-surface always available to warm the feet and one heated by the radiator.

One advantage of the possibility of admitting steam or hot water to the interior of the warmer is the saving of time, as in case the radiator and warmer were both cold and it was necessary to depend upon the warmer being heated from the radiator after steam was turned into the latter a comparatively long time might elapse; but when steam or hot water is simultaneously turned into both no delay occurs before the warmer receives heat enough, and when at a proper temperature, its direct supply being cut off, it will hold its heat at a fixed degree, which could not be the case in a foot-warmer which was heated by direct contact with a radiator, which would be liable to vary in temperature from one too hot to one too cold.

This device so constructed is easily combined with or detached from the radiators in general use, and provides the securest rest for the feet, entirely doing away with the effort required to maintain the feet upright upon a plane surface.

The warmer as a foot-rest alone, without its cavity and heating connection, as configured upon its face and as arranged and insulated to set off from the radiator, has many advantages, and without pipe C, acting as an auxiliary in supporting it, could be firmly secured by its clamp to the radiator.

Now, having described my invention, what I claim is—

1. The within-described foot-rest attachment for radiators, comprising the foot rest or block flat upon its back, provided upon its face with two compartments for seating a pair of feet, by a flange rising from the face and adapted to form side and heel supports to the shoes, as shown; and a clamp for encircling a radiator-pipe, and insulating-block secured to the back of the rest and to the clamp, and adapted to set off the rest an air-space from the radiator.

2. The within-described foot warmer and rest for attachment to radiators comprising a block flat upon its back, divided upon its face into feet-receptacles by a flange rising from the face and extending upon the sides and bottom of the foot-spaces, and provided with a cavity between its back and face to receive a heating medium, a clamping-band secured to the back of the block, an insulator interposed between the clamping-band and back of the block and adapted to set off the block by an air-space from the radiator—and heat connecting-pipe between the foot-warmer and radiator supply-pipe—all combined and operating as and for the purpose set forth.

3. The within-described foot warmer and rest for radiators, comprising a block divided upon its face into foot-compartments by a flange rising from the face and forming side and bottom walls to retain the shoes in place, an internal cavity for receiving steam or hot water, a clamp-band and non-conducting washer for securing the hollow block to the radiator with an air-space intervening—and a heat-supply pipe C and valve G combined with the supply-pipe D and operating to permit an independent supply of heat to the foot-warmer.

CHRISTOPHER CLARKE.

Witnesses:
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