E. J. FUNK.

FOOT WARMER ATTACHMENT FOR RADIATORS.

APPLICATION FILED APR. 24, 1916.

1,228,105. Patented May 29, 1917.

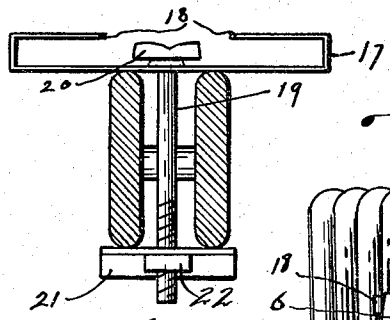


Fig. 4.

Fig. 1.

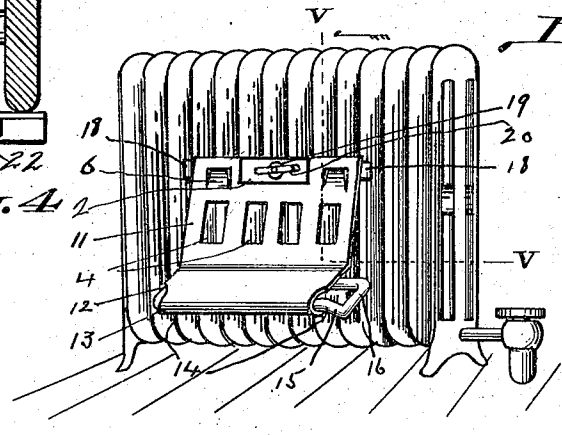


Fig. 5.

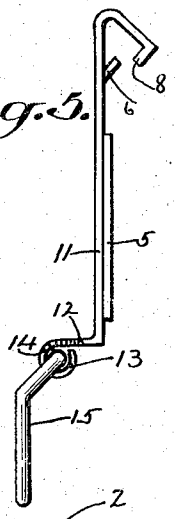


Fig. 3.

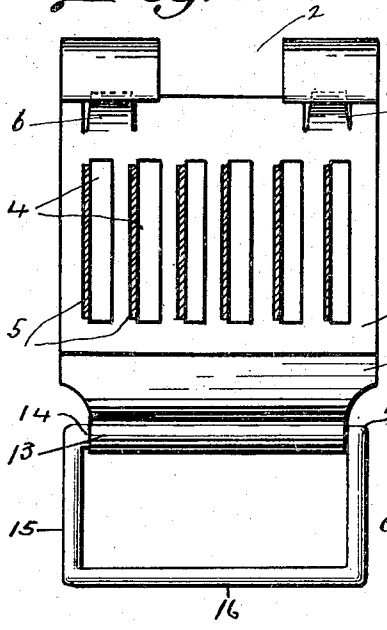
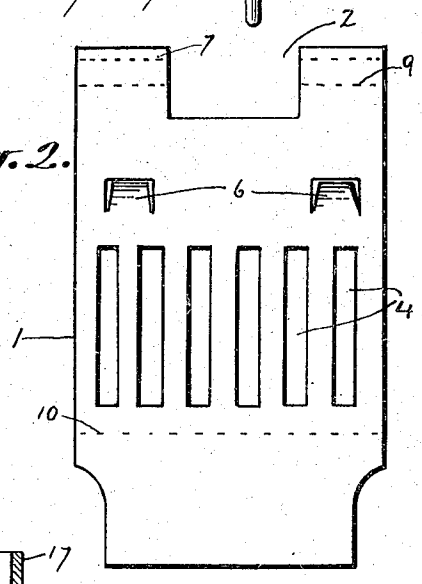


Fig. 2.



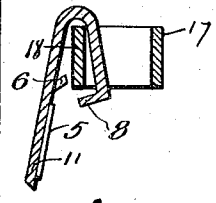


Fig. 6.

WITNESSES:

Francis. Burt

A. L. Funck

INVENTOR

ELMER J. FUNK

BY M. C. Gillham

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ELMER J. FUNK, OF KANSAS CITY, MISSOURI.

FOOT-WARMER ATTACHMENT FOR RADIATORS.

1,228,105. Specification of Letters Patent. Patented May 29, 1917.

Application filed April 24, 1916. Serial No. 93,065.

To all whom it may concern:

Be it known that I, ELMER J. FUNK, a citizen of the United States, and residing in Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Foot-Warmer Attachment for Radiators, of which the following is a specification.

My invention relates to foot warmer attachments for radiators of the class which are portable and adapted for suspending from the radiator connected in hot water and steam heating systems.

The object of my invention is first to provide a cheap, durable and portable foot warmer which may be attached to radiators and to provide dependable means for movably suspending the foot warmer thereon.

I attain these and other objects by the device and construction illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of my invention in operative position and suspended from a radiator;

Fig. 2 is a plan view of the plate from which the foot warmer is formed;

Fig. 3 is a rear elevation of the foot warmer, the attaching means being omitted;

Fig. 4 is a view of the supporting member in operative position on the radiator;

Fig. 5 is a side elevation of the foot warmer and showing the rotatable brace for adjusting the angle of inclination of the device, and

Fig. 6 is a cross section through the supporting member and sectional view of a fragment of the upper end of the foot warmer, showing the latter in operative position on the former, taken on the line V—V, in Fig. 1.

Similar reference numerals refer to corresponding parts throughout the several views.

Referring to the drawings—1 indicates an oblong metal plate, preferably steel, of a thickness adapted for bending and forming to shape. A recess 2, is formed in the upper end portion of the plate and the sides of the lower end portion are cut away inwardly to provide opportunity for folding the parts of the foot warmer when the plate is properly bent to form, as shown in Figs. 1, 2, and 3. A series of longitudinally extending slots 4, are apertured in the intermediate portion of the plate for the purpose of permitting the passage therethrough of the heated air radiating from the radiator. The slots 4, are formed by an incision in the plate at three sides, and the cut away section of metal is bent backwardly over and on the back of the plate at right angles thereto, thus forming the angle section 5, between the slots, thereby adding strength and rigidity to the foot warmer. Inverted U-shaped incisions are made in the upper portion of the plate, adjacent its opposite sides, and the metal thus cut away is bent backward at an angle of about forty five degrees to form combined guides and limiting stops 6, for a purpose that will be hereinafter fully explained. A portion of the upper end of the plate 1, is bent transversely backward on the dotted line 7, until the bent portion shall be substantially at an angle of forty five degrees to the back of the plate, thus forming a flange 8, adapted to coöperate with the stops 6, to hold the foot warmer in place. The plate is then bent transversely backward on the dotted line 9, until the bent portion shall incline at an angle of about ninety degrees to the back of the plate, and the flange 8, shall be brought in opposition to the stops 6, but spaced apart therefrom a little distance, thus forming a hook-shaped neck adapted for engaging a supporting member hereinafter described. The plate is then bent transversely forward on the dotted line 10, substantially at right angles to the front of the plate, thereby forming a foot portion 11, and a heel support 12, adapted to receive and support the feet when the individual is seated. The reduced portion of the lower end of the plate is rolled backward to form a tubular seat 13, for the inturned terminals 14, of a flexed rod 15, adapted to bear on the radiator and hold the foot warmer at any desired angle of inclination and forming a support 16. A supporting member 17, is made of a strip of metal similar to the metal in the plate 1, and its opposite end portions are bent at right angles and the greater portion of the angled portion is bent parallel with the body of the strip, thereby forming oppositely disposed inturned supporting arms 18. An aperture is formed centrally in the body of the strip and is adapted to receive a screw bolt 19, the head of which is provided with wings 20, adapted for the convenient turning of the screw and to facilitate the attaching of the supporting member to the radiator. An angle iron 21, is movably mount-

ed on the screw bolt inwardly of the supporting member 17, and a clamping nut 22, is mounted on the inner end of the screw bolt and is lodged on the angle iron 21, so that the same will not turn with the screw bolt.

The supporting member 17, is attached to the radiator by passing the screw bolt between the sections of the radiator. In this operation the angle iron 21, on the screw bolt is held in vertical position until it has been passed through the space between the radiator sections, when it is positioned horizontally and lodged against the back of the radiator and the screw bolt is turned to draw the angle iron tightly against the radiator, thereby attaching the supporting member to the radiator in operative position. The foot warmer is then suspended from the inturned arms 18, and the support 16, is then rotated backwardly against the radiator and raised or lowered to bring the foot warmer to the desired inclination. The slotted apertures 4, permit the heated air radiating from the radiator to strike the feet resting on the heel portion 12. A supporting member may be attached to each radiator in the system and the foot warmer may be carried from room to room and attached to the selected radiator. The rotatable support 16, may be rotated upward to and against the back of the foot portion 11, by reason of the cut away portion at the opposite sides of the heel portion 12, thus folding the foot warmer in a compact package while suspended from the radiator.

The pressure of the feet resting on the heel portion brings the pivoted ends of the support 16, to bear against the lower side of the cut away portion at the angle between the foot and heel portions, thus forcing the bent portion of the support to contact the radiator at an angle, thereby inclining the foot warmer forward in a restful position for the feet, in which position the heated air radiating from the radiator is induced to rise through the slotted apertures in the foot portion.

When it is desired to remove the foot warmer from the supporting member it is swung forward a distance, so that the arms 18, shall be in position to pass between the ends of the stops 6, and the edge of the flanges 8, when it is lifted vertically from the supporting member. This provision makes the foot warmer portable, and it may be attached and detached at will, and stored.

When the foot warmer is in operative position on the radiator, the flanges 8, will be positioned below the lower edges of the arms 18, of the supporting member, and the stops 6, will be positioned in front of the face of the same, so that if the foot warmer shall be pushed back by undue pressure of the feet, or by shock, the stops 6, will arrest the movement by striking the front face of the supporting arms, thereby preventing the collapse of the foot warmer. If there should be vertical movement of the foot warmer, the flanges 8, will engage the lower edges of the supporting arms, thereby limiting such movement.

Having fully described my invention, I claim—

In a foot warmer attachment for radiators, the combination, of a supporting member comprising a bar having its end portions bent forwardly and then inwardly paralleling the bar to form opposed spaced arms and attaching means mounted on the bar between the terminal ends of said arms, a foot rest member comprising a shelf portion having its end portions cut away and its front turned under to form pivot bearings, the back portion of the shelf being provided with rearwardly and downwardly extending spaced apart integral hooks supportingly engaged by the arms on the supporting member, the terminal end portions of said hooks being bent inwardly to form stops below said arms, and with rearwardly inclined spaced apart integral stops presented to the front side of said arms and opposed to said hooks, said back portion of the shelf being partially severed at intervals and the cut portions bent rearwardly to provide air passages and form ribs at the borders of the passages, and a brace pivotally mounted on said foot rest member and adapted to bear on a radiator rearwardly of the foot rest and supportingly engage the cut away portion of said shelf portion.

Dated Kansas City, Mo., April 14th, 1916.

ELMER J. FUNK.

Witnesses:
Mrs. E. J. Funk,
Francis Burt.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."