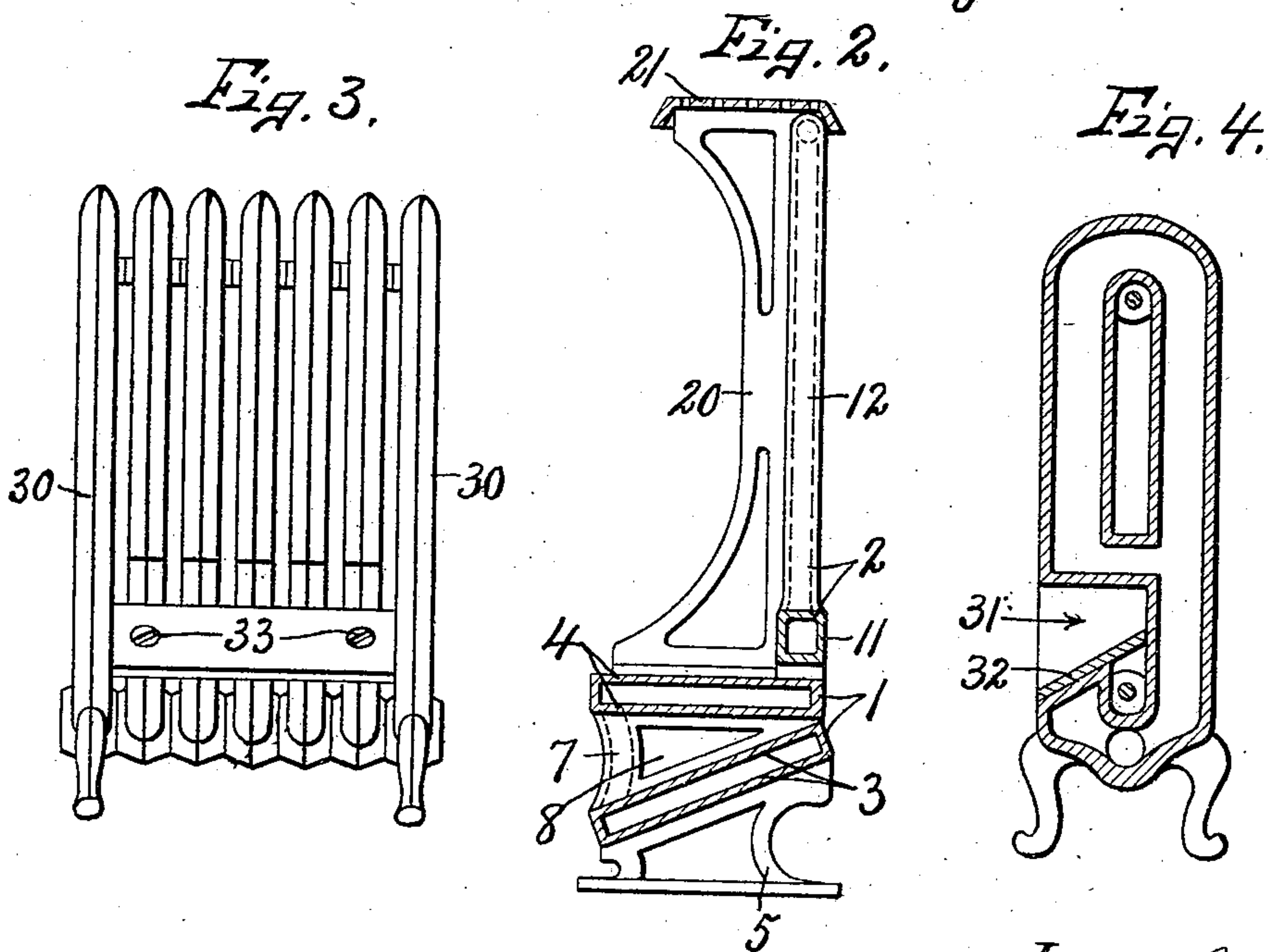
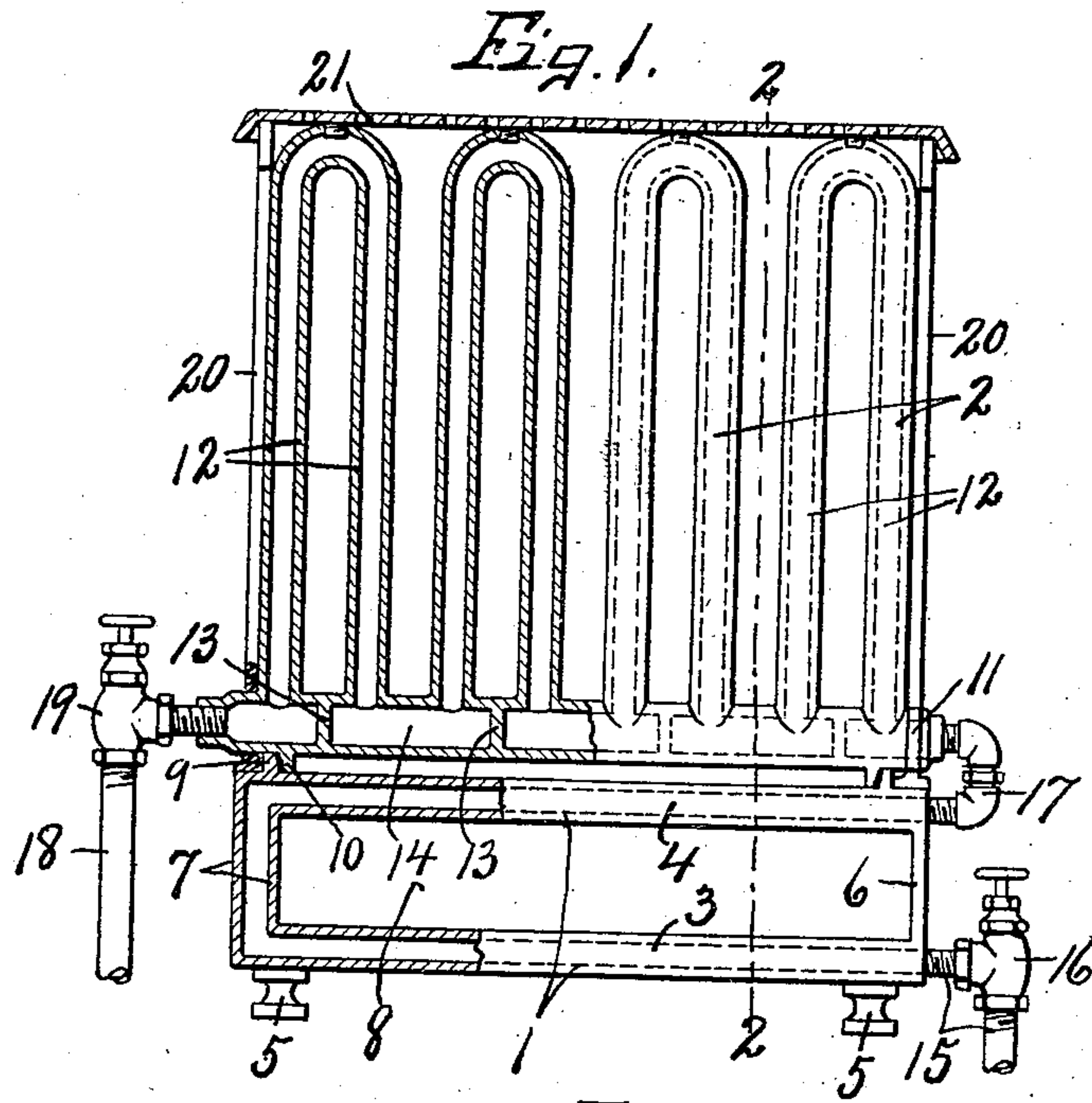


J. E. JONES.
 COMBINED RADIATOR AND FOOT WARMER.
 APPLICATION FILED DEC. 30, 1907.

968,569.

Patented Aug. 30, 1910.



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UNITED STATES PATENT OFFICE.

JAMES E. JONES, OF SYRACUSE, NEW YORK.

COMBINED RADIATOR AND FOOT-WARMER.

968,569.

Specification of Letters Patent. Patented Aug. 30, 1910.

Application filed December 30, 1907. Serial No. 408,584.

To all whom it may concern:

Be it known that I, JAMES E. JONES, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Combined Radiators and Foot-Warmers, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention relates to certain improvements in combined radiators and foot warmers of the class set forth in my Patent Number 889,689 issued June 2, 1908, except that in the present instance the foot warmer constitutes the base or segmental part of the radiator and also a part of the circulating system of the heating agent as steam or hot water.

20 The primary object of my present invention is to construct a radiator with a recess or foot opening in one side and to provide the lower side of said opening with a suitable foot rest usually inclined for the support of the feet and to allow the heating agent to circulate around practically all sides but the front side of the recess.

25 Another object is to construct the foot warming base separate from the superposed portion of the radiator so that either may be used independently of the other or both combined as may be desired.

Other objects and uses relating to specific parts of the radiator will be brought out in the following description.

35 In the drawings—Figure 1 is a front elevation partly in section of a combined radiator and foot warmer embodying the various features of my invention. Fig. 2 is a transverse sectional view taken on line 2—2, Fig. 1. Figs. 3 and 4 are respectively a front elevation and transverse sectional view of a modified form of a radiator and foot warmer.

45 The device shown in Figs. 1 and 2 consists essentially of a base —1— and a superposed radiating section —2— mounted thereon, the base —1— comprising essentially lower and upper hollow plates or shelves —3— and —4— of substantially the same area and capacity, the lower shelf or plate —3— being inclined transversely from the front toward the rear and serves as a foot rest while the superposed plate —4— is disposed in a substantially horizontal position and forms a suitable shelf upon which rubbers and other articles may be sup-

ported and warmed or dried. These two plates —3— and —4— which are preferably made of cast metal are usually cast in one piece together with a suitable supporting base or brackets —5—, the opposite ends of said shelves or plates —3— and —4— being united by end bars or plates —6— and —7— one of which as the end piece —7— is hollow and serves as a connecting passage between the chambers of the plates —3— and —4— in order that the heating agent may circulate readily from one to the other. This arrangement of the plates —3— and —4— and end pieces —6— and —7— leaves an intervening foot space —8— with a rearwardly inclined bottom forming the upper face of the hollow plate —3—, the space —8— constituting what may be termed a foot warming oven open at the front side and inclosed by the hollow bottom and top plates —3— and —4— and hollow end plate —7— through which the heating agent may freely circulate. The hollow plate 3 has its rear upper edge contacting for its entire length with the rear lower edge of the hollow plate 4 while the circulation through the end piece 7 is provided between the front ends of said plates. The foot warming base —1— may be used separately to serve the double purpose of a foot warmer and radiator or may be associated as shown in Figs. 1 and 2 with a superposed radiator section —2— which in this instance is of considerable less transverse width from front to rear than and is supported upon the upper face of the shelf —4— near the rear edge of the latter leaving the greater portion of the shelf —4— in front of the radiator section available for supporting rubbers and other articles, the contiguous faces of the radiator sections —1— and —2— being provided with interlocking flanges —9— and —10— which serve to hold said sections against relative lateral movement, the radiator section —2— comprising a distributing head or base —11— and upright return conduits —12— rising therefrom. This radiator section —2— may be of any desired length according to the radiating area required and in practice the distributing head —11— is provided with transverse partitions —13— located between the lower ends of the opposite legs of each return conduit thereby dividing said head into a series of compartments —14—, each connecting the lower end of one leg of one upright conduit

with the adjacent leg of the next upright conduit, so that the heating agent is forced to pass successively through several conduits from one end of the radiator to the other. The heating agent is supplied to one end of the lower shelf —3— opposite to that having the opposite hollow end —7— through a suitable supply conduit —15— having a controlling valve —16— thereby causing the heating agent to pass entirely through the shelf —3— from which it passes upwardly through the hollow end —7— and into the adjacent end of the upper hollow shelf —4—, from which it is conducted by a pipe or conduit —17— to one end of the distributing head —11—, said heating agent passing successively through the conduits —12— and compartments to the opposite end of the head —11— from which it is returned to the generator, (not shown,) to a return conduit —18— having a controlling valve —19—. The upper radiator section —2— is in this particular instance shown as provided with side brackets —20— which are fastened to the upper shelf —4— by any suitable fastening means, not necessary to herein illustrate or describe, the upper ends of the conduits —12— being capped by a suitable perforated plate —21— which gives a finish to the radiator and allows the heated air to radiate upwardly.

In Figs. 3 and 4 I have shown a modified construction of radiator in which one or more of the end sections as —30— are of the ordinary loop type while one or more of the intermediate sections are provided with recesses —31— in their front faces usually near the lower ends forming a foot space, the lower sides of the recesses being provided with a suitable foot rest or plate —32— extending across the bottoms of the recesses —31— and held in place by suitable fastening means as screws —33—. In this particular instance the foot warming oven is formed directly in the front side of the radiator loops which otherwise are of ordinary construction and may be connected in the usual manner to the inlet and return pipes of the heating system.

What I claim is:

1. In combination with a vertical radiator, an inclined foot-rest positioned therebeneath, a heating chamber beneath and a heating chamber above said foot-rest and each of said chambers being co-extensive in length with said radiator and foot-rest and said chambers lying in intersecting planes.

2. In combination with a vertical radiator

having downwardly projecting lugs, a base member consisting of a horizontal shelf and a heating chamber contained in said shelf, an upwardly and rearwardly inclined shelf of equal length with the aforesaid shelf, the upper rear edge of the inclined shelf contacting the lower rear edge of the horizontal shelf for its entire length, said inclined shelf provided with a heating chamber.

3. In combination with a vertical radiator having downwardly projecting lugs, a base member consisting of a horizontal shelf and a heating chamber contained in said shelf, an upwardly and rearwardly inclined shelf of equal length with the aforesaid shelf, the upper rear edge of the inclined shelf contacting the lower rear edge of the horizontal shelf for its entire length, said inclined shelf provided with a heating chamber, and upwardly projecting lugs provided upon the horizontal shelf co-acting with the lugs of the radiator to hold the same positioned upon said base.

4. In combination with a vertical radiator having a heating chamber therein, a base member consisting of a horizontal shelf and a heating chamber in said shelf, said radiator having downwardly projecting lugs, an upwardly and rearwardly inclined shelf of equal length with the aforesaid shelf, the upper rear edge of the inclined shelf contacting the lower rear edge of the horizontal shelf for its entire length, said inclined shelf provided with a heating chamber, upwardly projecting lugs provided upon the horizontal shelf co-acting with the lugs of the radiator to hold the same positioned upon said base, a conduit between the radiator heating chamber and one end of the chamber of the horizontal shelf, and a conduit between the opposite end of said horizontal shelf and the inclined shelf.

5. In combination with a radiator, a base member consisting of a horizontal shelf and a heating chamber contained in said shelf, an upwardly and rearwardly inclined shelf below said horizontal shelf, the rear portion of the inclined shelf lying parallel to the rear portion of the horizontal shelf and said inclined shelf provided with a heating chamber.

In witness whereof I have hereunto set my hand this 13th day of December 1907.

JAMES E. JONES.

Witnesses:

H. E. CHASE,
A. C. THOMAS.