

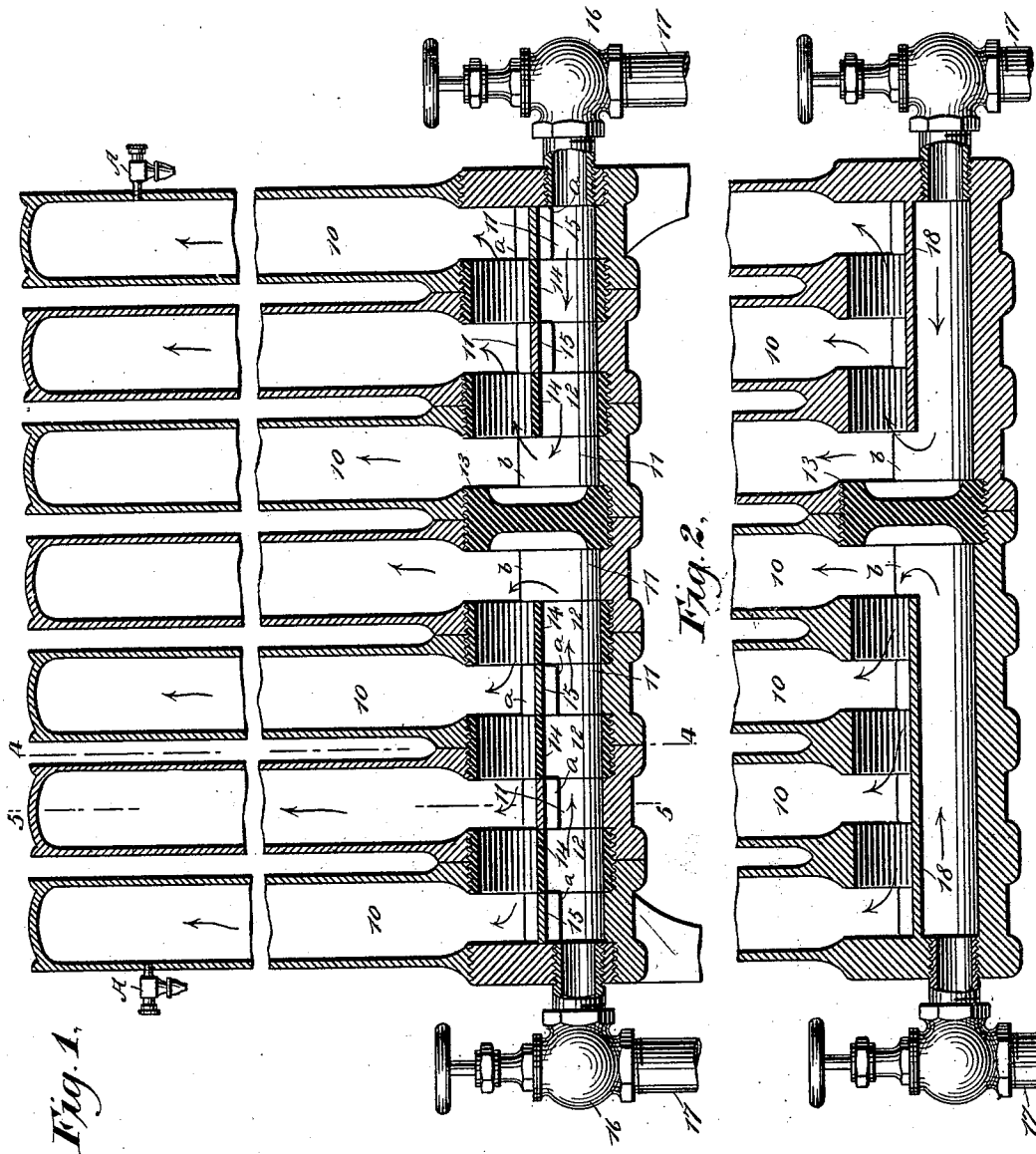
(No Model.)

2 Sheets—Sheet 1.

A. EICHHORN.
RADIATOR.

No. 557,499.

Patented Mar. 31, 1896.



WITNESSES:

Edward Thorpe.
Wm. L. Patton

INVENTOR

A. Eichhorn

BY

Munn & Co

ATTORNEYS.

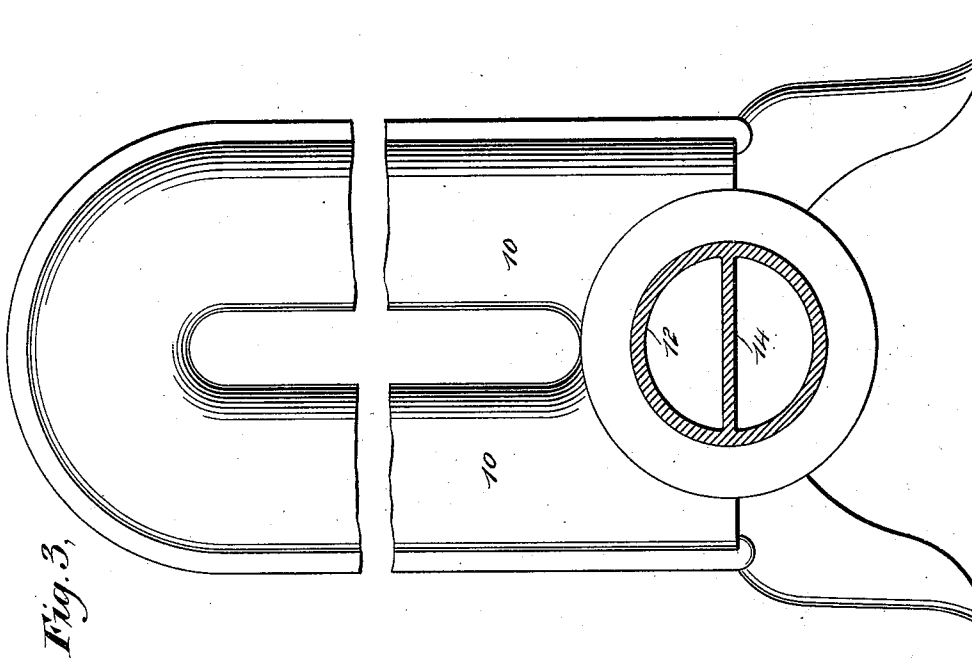
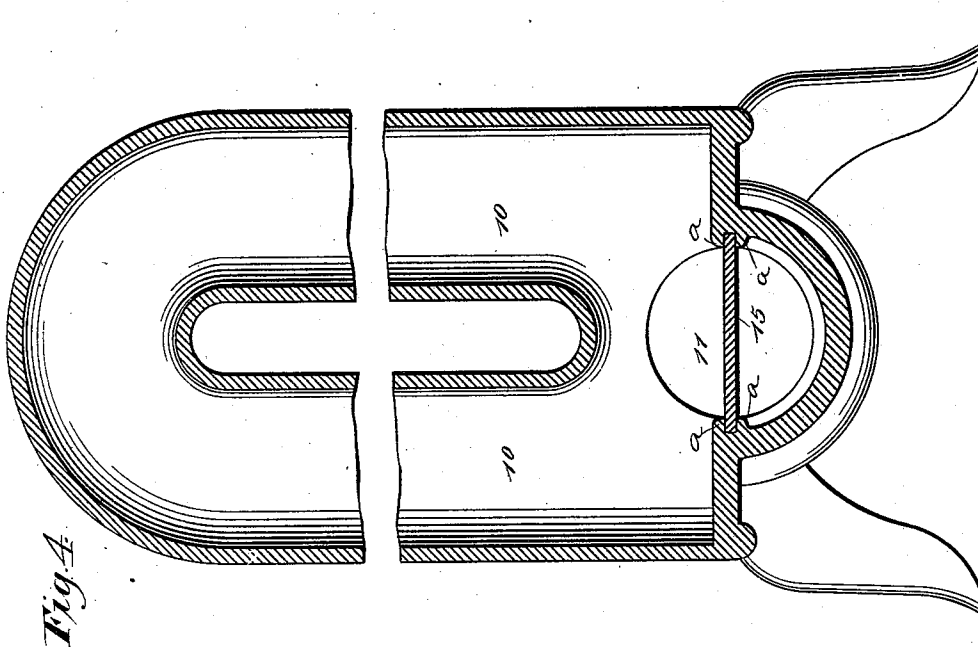
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UNITED STATES PATENT OFFICE.

AUGUSTUS EICHHORN, OF ORANGE, NEW JERSEY.

RADIATOR.

SPECIFICATION forming part of Letters Patent No. 557,499, dated March 31, 1896.

Application filed June 19, 1895. Serial No. 553,361. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS EICHHORN, of Orange, in the county of Essex and State of New Jersey, have invented a new and Improved Radiator, of which the following is a full, clear, and exact description.

The main object of this invention is to provide a steam-radiator in which it will be possible to more readily and effectively expel the air from the interior thereof upon the entry of the steam.

To this end the invention consists in a base, a series of sections communicating with the base at one of their ends, and a diaphragm extending longitudinally and centrally with the base and serving to introduce the steam at the rear of the sections, so that it will be behind the air and by these means more effectively and easily expel the same.

The invention will be more fully described hereinafter and finally embodied in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 represents a vertical section of my invention. Fig. 2 represents a partial section showing a modification thereof. Fig. 3 is a section on the line 4 4 of Fig. 1.

Referring to Figs. 1, 2, and 3, the sections 10 are formed to comprise transversely-tubulated portions 11, and the adjacent ends of these tubulated portions are made to fit snugly against each other and form continuous interior spaces, which are screw-threaded and have the thimbles 12 arranged therein. These thimbles have formed integral therewith and extending centrally across them the horizontal diaphragm-sections 14, and these sections are arranged so as to divide the space inclosed by the thimbles into two parts, and this division is completed by means of the separate plates 15, which are arranged to lie between the edges of the contiguous plates 14 and are held by parallel ribs *a*, formed integral with the interior sides of the tubulated portions of the sections 10. By these means the tubulated portions of the sections 10, or, in other words, the base of the radiator, is divided by a horizontally and longitudinally extending diaphragm formed by the plates 14 and 15.

Two of the sections 10, which are inward from the end sections, are joined by a plug 13, which is screwed into each of the two sections and which forms the radiator into two compartments, having no communication with each other. The sections which are so connected are not formed with ribs, such as the ribs *a* of the other sections, but the space which would be occupied by these ribs and the plate 15, which would coact therewith, is left open, so that the steam may pass from the lower side of the diaphragm formed by the plates 14 and 15 upwardly into the space at the upper side of the diaphragm and into the sections, as shown by the arrows in Fig. 1.

Steam is fed to the two compartments of the radiator by supply-pipes 17, which are provided with valves 16, by which the flow of steam therefrom may be controlled. The end sections 10 are provided with air-vents *A*, which may be of any proper construction.

It will be seen that in a radiator constructed as above described the steam entering from the pipes 17 will pass along the under side of the diaphragm and enter the sections 10 only through the spaces *b*, and will thus be at the back of the bodies of air in the sections, so as to readily and effectively expel the same, all of which has been explained.

The form of my invention shown in Fig. 2 is a structural variation of the above-described form, and in it the sections 10 are all cast integral, excepting the two which are sealed from each other by means of the plug 13, and in this form of Fig. 2 the sections are tubulated as in the other form, so as to produce the base essential to my invention, and the diaphragms 18 are cast integral with the structure, as the drawings show. The steam-supply pipes 17 are arranged the same in this form as in the other, and the sections are also provided with the air-vents, as in Fig. 1. The plugs 13 are in function partitions for dividing the radiators into the compartments, as above described.

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

1. A steam-radiator consisting of a series of sections having communication at their lower portions, said portions being tubulated to form a base, a partition for dividing said

base into two parts having no communication with each other, whereby the radiator is divided into two compartments, each compartment having an inlet-opening in its base and at the end farthest from the partition, each compartment also having an air-outlet in the section adjacent to the inlet-orifice, and a horizontal diaphragm in the base of each compartment, the diaphragms extending from the outer extremities of the bases inwardly to points near the respective sides of the partition, substantially as described.

2. A radiator, comprising a series of separable sections having tubulated portions matching with each other to form a base communicating with the sections, the base having a steam-supply orifice, threaded thimbles ar-

ranged to connect each section at its tubulated portion, the threaded thimbles having a horizontally-extended diaphragm-section and the radiator-sections having between the thimbles parallel horizontal ribs, and diaphragm-plates slidable in said ribs and alining with the plates of the thimbles so as to form a longitudinal diaphragm producing two compartments having communication with each other at the end opposite the steam-supply orifice, said orifice being below the diaphragm, substantially as described.

AUGUSTUS EICHHORN.

Witnesses:

WM. P. PATTON,
JNO. M. RITTER.