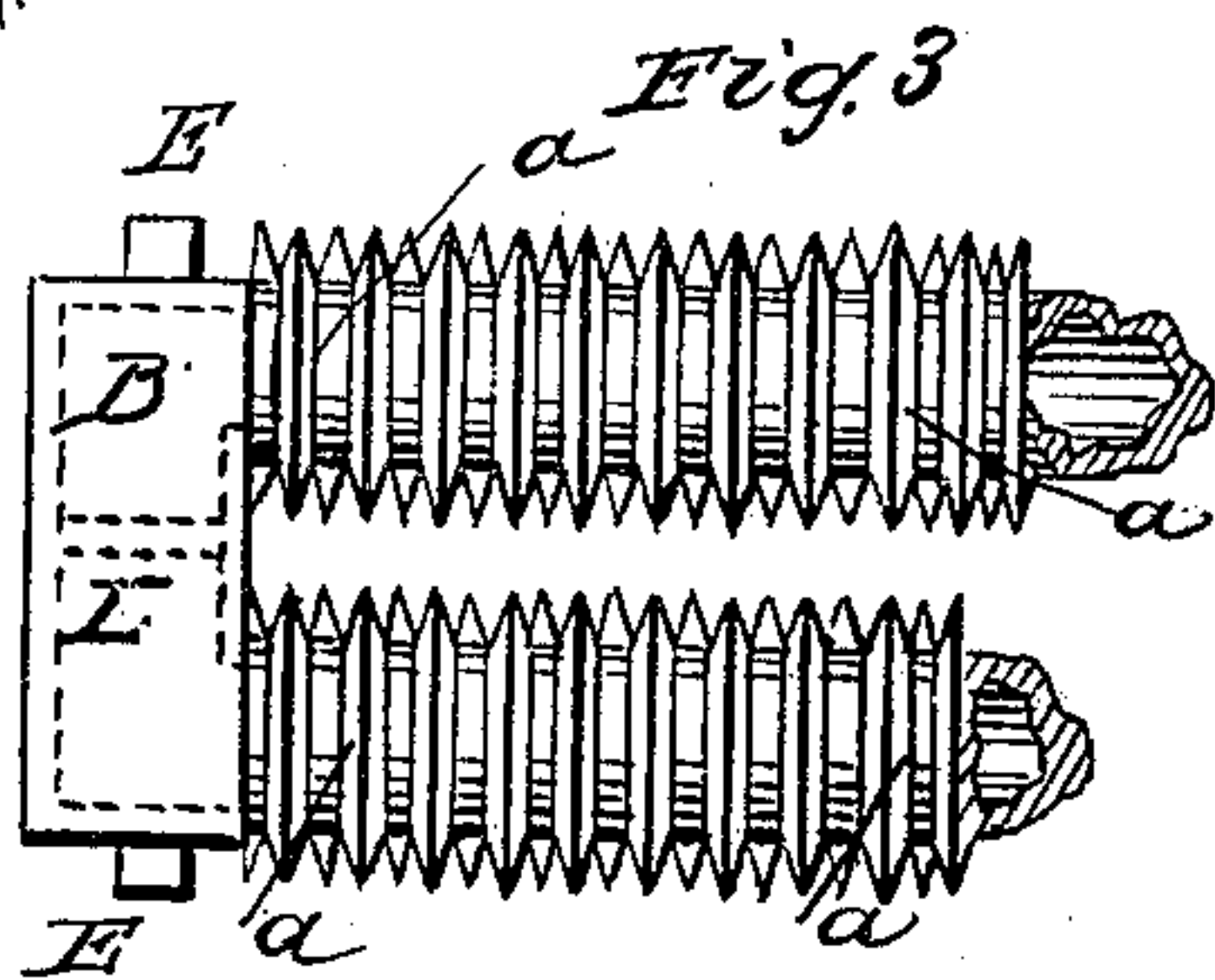
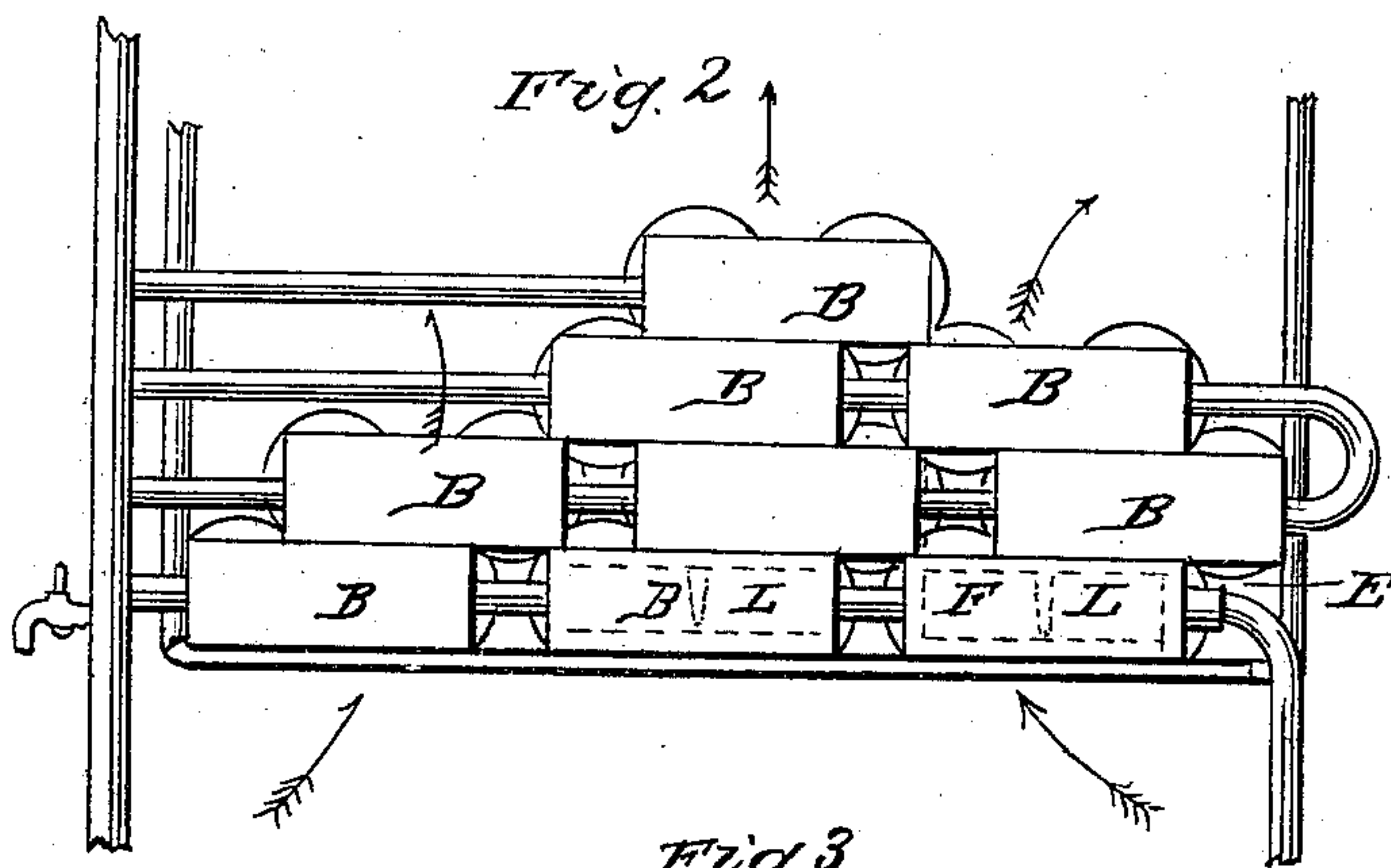
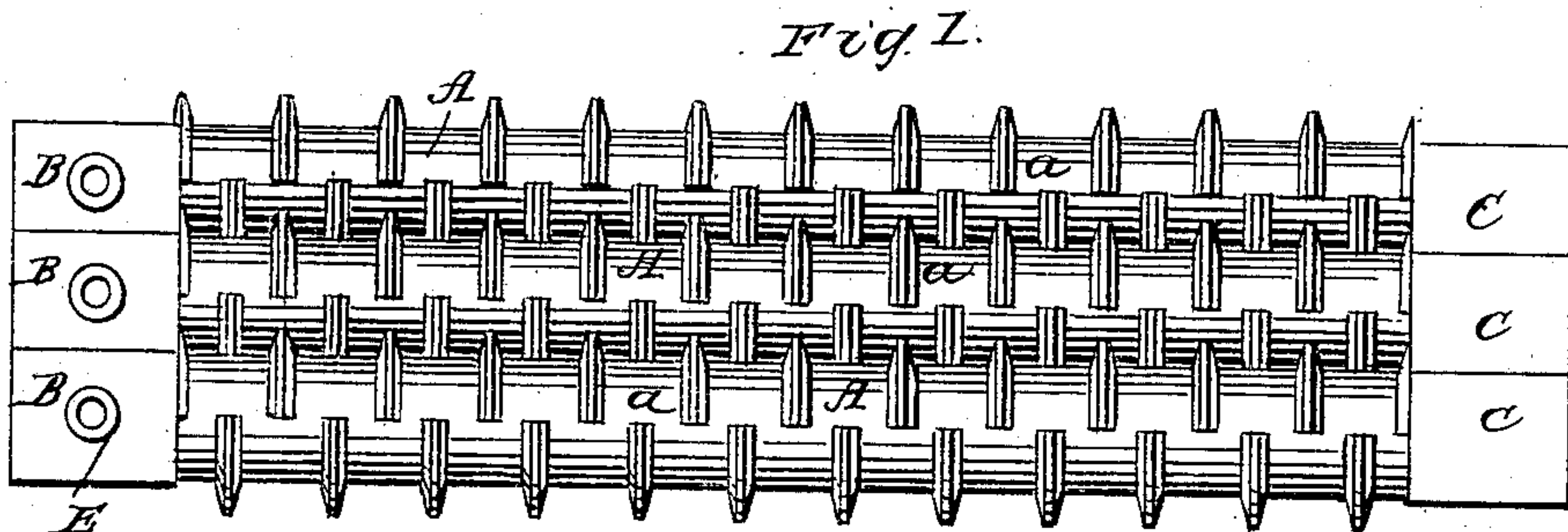


A. C. BAKER.

Steam Heater.

No. 104,246.

Patented June 14, 1870.



Witnesses

Rosevelt Lee
C. Dudley Chapin

Inventor

Albert C. Baker
by his Attorneys
Gardner & Hyde

UNITED STATES PATENT OFFICE.

ALBERT C. BAKER, OF WESTFIELD, MASSACHUSETTS, ASSIGNOR TO HIMSELF
AND GEORGE L. LAFLIN, OF SAME PLACE.

STEAM-RADIATOR.

Specification forming part of Letters Patent No. **104,246**, dated June 14, 1870.

To all whom it may concern:

Be it known that I, ALBERT C. BAKER, of Westfield, Hampden county, Commonwealth of Massachusetts, have invented certain Improvements in Steam-Radiators, of which the following is a specification:

My invention relates to forming a steam-radiator of successive layers of pipes for the reception and passage of steam, said pipes being constructed by being cast with corrugations or flanges surrounding them, of peculiar form, in such a way that the air passing through the radiator will come in contact with the greatest heating-surface that could be arranged in the same space.

Referring to the accompanying drawing, Figure I is a side view of my invention, showing the layers of pipes arranged three deep. Fig. II is an end view, showing the radiator as suspended. Fig. III is a detail view of a part of one of the castings.

Each casting contains the two pipes H H, having flanges *a a*, &c., and are connected by the rectangular ends B C, at a distance from each other equal to about the depth of their flanges *a a*. These ends have flat top and bottom surfaces, so that they will rest securely upon each other. The ends C are nothing more internally than return-bends, through which the steam passes from one pipe to the other; but the ones B have each a partition across them, running from the top to a point near the bottom, and below the level of the mouths of the ingress and egress ports E F.

The pipes A A are cast with tapering flanges *a*, at a short distance from each other, and extending around the pipe half its circumference. The number of these flanges is proportioned to the length of the pipe, and I form them so that all of their ends will be on a line, and the ends of the semicircular flanges on one side will be opposite the space between the flanges encircling the other side of the pipe.

In placing the castings, the distance is kept between the pipes of contiguous castings in the same layer that exists between the two pipes in a casting. The castings are coupled at the end B, and are placed above each other in layers, as shown in Fig. II, and can be either suspended or raised from the floor upon a platform. The castings are placed one above the other, so that the center of one pipe comes above the space between two pipes, and the flanges mesh, so that the current of air rising from beneath comes in contact with an immense heating-surface.

The steam coming through port E, were it not for division L in end B, would go principally through one end of the radiator, and, consequently, make it unequally hot; but the partition compels it to pass entirely around one brace of pipes before it can go to another, and insures uniformity in heating.

The end of the partition L, being below the level of openings for passage of steam from one casting to another, is always closed by the water which collects in the pipes of steam-radiators from condensation and otherwise, and while the steam is prevented from passing through said opening the excess of water can freely flow to the cock for discharging it.

What I claim is—

1. The construction of a steam-radiator, as described, of alternate layers of castings, having pipes A A, provided with flanges *a a*, meshing within each other, all arranged substantially as shown.

2. The combination of pipes A A, with flanges *a a*, with the end B, having partition L, as shown and described.

ALBERT C. BAKER.

Witnesses:

J. H. FOX,
R. F. HYDE.