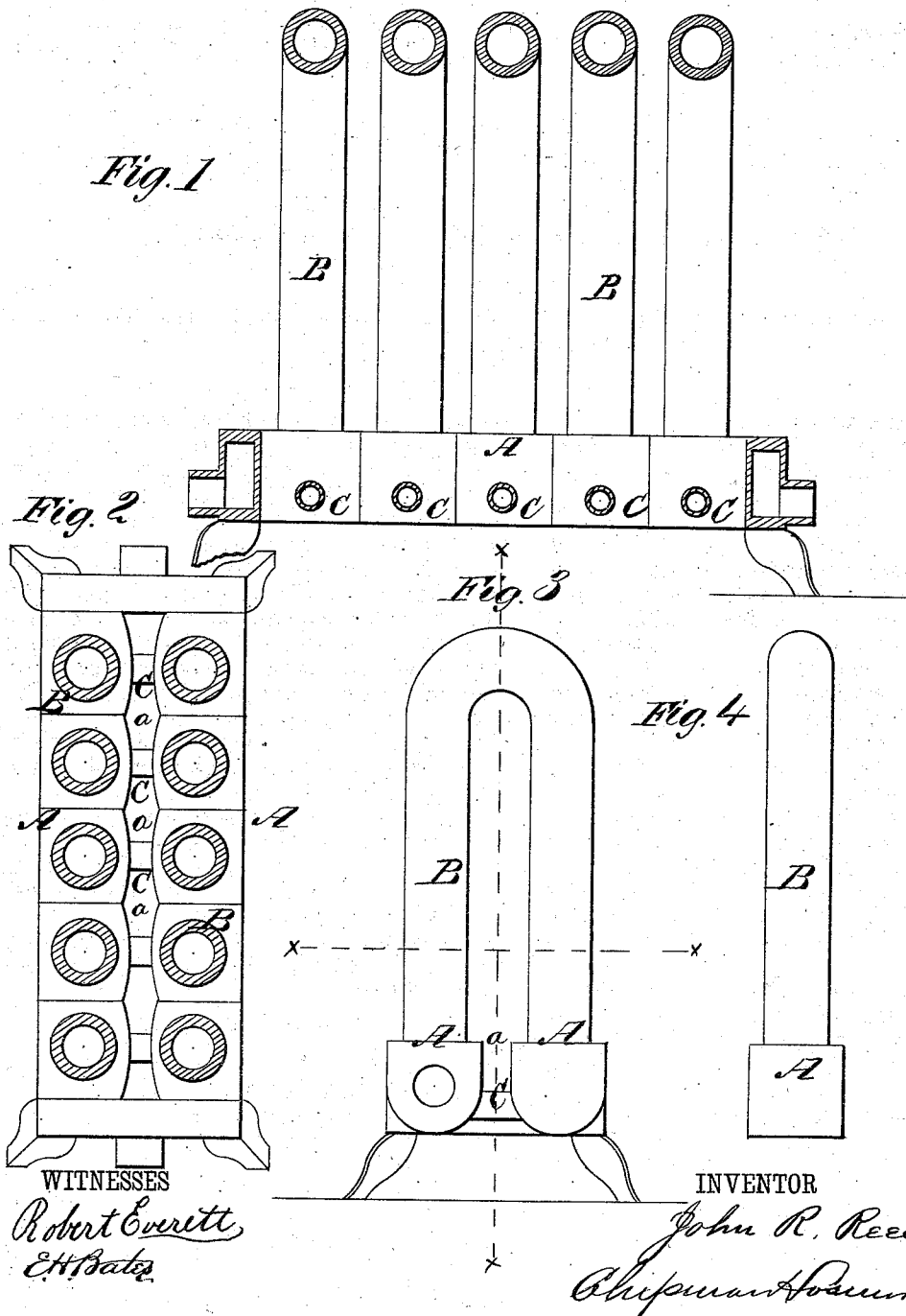


J. R. REED.

Steam-Heater Radiators.

No. 154,905.

Patented Sept. 8, 1874.



Attorneys

UNITED STATES PATENT OFFICE.

JOHN R. REED, OF WESTFIELD, MASSACHUSETTS.

IMPROVEMENT IN STEAM-HEATER RADIATORS.

Specification forming part of Letters Patent No. **154,905**, dated September 8, 1874; application filed August 19, 1874.

To all whom it may concern:

Be it known that I, JOHN R. REED, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and valuable Improvement in Radiators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical central section of my improved radiator. Fig. 2 is a cross-section of the same. Fig. 3 is an end view, and Fig. 4 is a detail view.

This invention has relation to radiators of heat wherein steam is conducted through inverted U-shaped pipes; and it consists in combining with such pipes a hollow open base, formed by uniting the pipes together at their lower ends by means of short connecting-tubes, thus allowing a free passage of air from below upward, and greatly augmenting the radiating capacity of the apparatus, as will be hereinafter more fully explained.

The following is a description of my invention:

In the annexed drawings, A A designate

the lower hollow ends of the steam-pipes B, which pipes are of a U shape. The portions A A of each pipe are separated, so as to leave a space, *a*, between them; and these portions are connected together by means of short drain-pipes C, which form communications between the chambered ends A A. The pipes B are suitably secured together in a rank, and, when together, the base portions A form communications between the pipes at their bases for the free circulation of steam through them.

It will be seen from the above description that I leave a free space between the two rows of base portions A, through which air can circulate freely, and pass up between the legs of the pipes and become warmed.

What I claim as new, and desire to secure by Letters Patent, is—

The separated hollow base-sections A A of pipes B, in combination with connecting-tubes C, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN RICHARD REED.

Witnesses:

A. W. ALEXANDER,
M. P. BRECKENRIDGE.