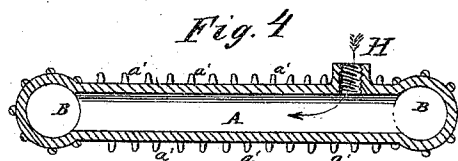
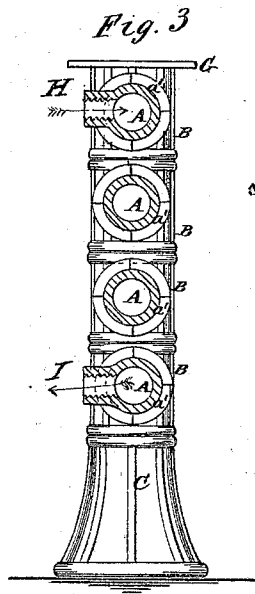
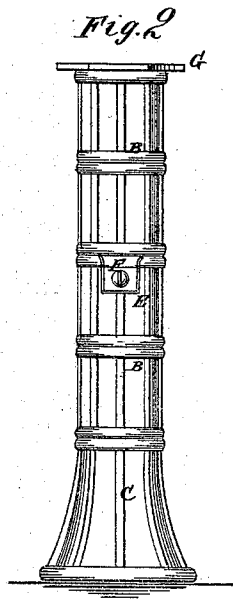
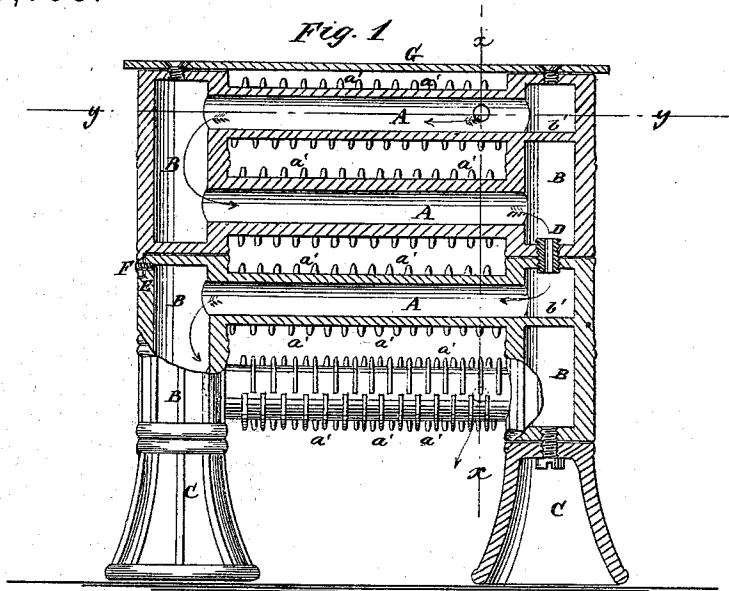


C. S. SMITH.
Steam-Radiators.

No. 150,798.

Patented May 12, 1874.



WITNESSES.

A. W. Almqvist
Chapman

INVENTOR.

C. S. Smith

PY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES S. SMITH, OF WESTFIELD, MASSACHUSETTS, ASSIGNOR TO NOVELTY STEAM-HEATING COMPANY, OF SAME PLACE.

IMPROVEMENT IN STEAM-RADIATORS.

Specification forming part of Letters Patent No. **150,798**, dated May 12, 1874; application filed March 7, 1874.

To all whom it may concern:

Be it known that I, CHARLES S. SMITH, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Steam-Radiator, of which the following is a specification:

Figure 1 is a side view of my improved radiator, partly in section, to show the construction. Fig. 2 is an end view of the same. Fig. 3 is a vertical cross-section of the same taken through the line *x x*, Fig. 1. Fig. 4 is a horizontal section of the same taken through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

The radiators are made in sections, each section consisting of two horizontal tubes, A, connected at their ends by two short tubes, B. The short tubes B are closed at their ends, and in one of said tubes B, at the lower side of the cavity of the upper tube A, is formed a partition, *b'*. The end tubes B, when the sections are placed one upon the other, form the posts of radiator. C are the feet or pedestals of the radiator, which are placed beneath the lower ends of the end tubes B of the lower section, where they are secured in place by screws passing up through the top of said feet, and screwing into screw-holes in the closed ends of the said end tubes. The ends of the tubes B that contain the partition *b'* are secured to each other by a screw-nipple, D, which is screwed into the closed end of the tube B of each lower section, and upon the upper end of which is screwed the closed end of the tube B of the next upper section. Upon

the upper end of the outer side of the other end tube of each lower section, is formed a rabbet, E, into which fits a lug, F, formed upon the lower end of the outer side of the end tube B of each upper section, so that when the said upper section has been screwed down upon the nipple D the free ends of said sections may be secured to each other by a screw passing through the lug F of the upper section, and screwing into the tube B of the lower section. G is the cap-plate of the radiator, which is secured to the closed upper ends of the tubes B of the upper section by screws, as shown in Fig. 1. Upon the outer or radiating surface of the pipes A of the sections are formed ring-flanges *a'*, which are broken into four parts or quadrants, and so arranged that the end of each part may be opposite the space between the ends of two adjacent parts, as shown in Fig. 1. H is the ingress-nozzle for the steam, which is formed in the side of the upper tube A of the upper section near the tube B, that contains the partition *b'*. I is the egress-nozzle for the steam and the water of condensation, which is formed in the lower pipe A of the lower section near the tube B, that contains the partition *b'*.

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

The combination of lug F and rabbet E in two adjacent sections, A B A B, to receive a fastening-screw, in the manner described.

CHARLES S. SMITH.

Witnesses:

H. E. LIGHT,
E. P. TINKER.