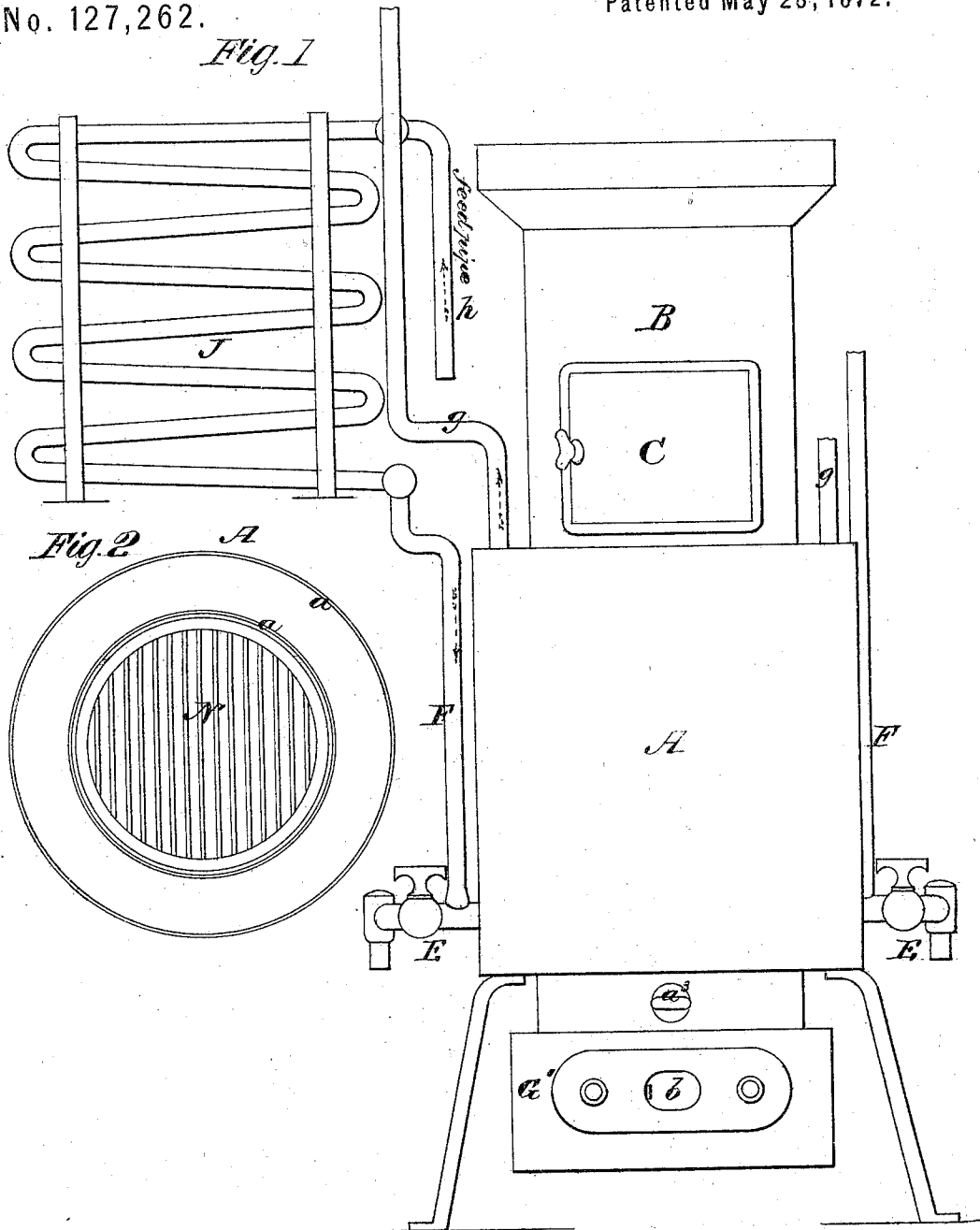


GEORGE NIXON.

Apparatus for Heating by Hot Water.

No. 127,262.

Patented May 28, 1872.



Witnesses
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Inventor
George Nixon
by J. H. Smith & Son.

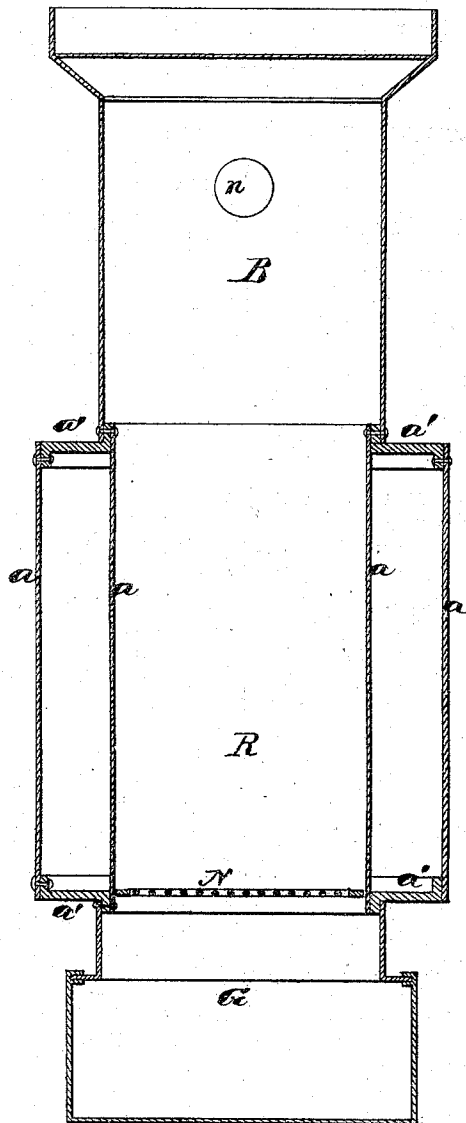
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Fig. 3



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UNITED STATES PATENT OFFICE.

GEORGE NIXON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN APPARATUS FOR HEATING BY HOT WATER.

Specification forming part of Letters Patent No. 127,262, dated May 28, 1872.

To all whom it may concern:

Be it known that I, GEORGE NIXON, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and Improved Apparatus for Heating Buildings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1, Plate 1, is a side elevation of the improved heating apparatus. Fig. 2, Plate 1, is a section taken horizontally through the combined boiler and furnace. Fig. 3, Plate 2, is a diametrical section through the furnace and boiler-walls.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of my invention consists in providing a hot-water apparatus, hereinafter explained, with means whereby the same can be readily flushed or cleared out without breaking any of the couplings of the pipes.

This invention relates to certain improvements on apparatus for warming buildings with hot water, wherein the hot water is caused to circulate through the boiler and through a system of radiating pipes or chambers, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, Plate 1, I have represented a tubular heat-radiator, J, connected to the water-heating apparatus by pipes F g, which radiator is supposed to be located in an upper room of a building, while the water-heating apparatus is supposed to be located in the cellar or other convenient place. The water-heater consists of a body, A, surmounted by a drum, B, and terminating below in an ash-pit, G, to which is applied an ash-drawer, G'. The body A consists of two vertical cylindrical walls, a a, which are made of boiler-iron, and riveted at their ends to cast-iron rings a¹ a'. This constitutes a cylindrical water-jacket, in the center of which is the fire-chamber R, shown in Fig. 3. At the base of fire-chamber R is a tilting-grate, N, the front of which is held up by a removable pin, a², and below this grate is the removable ash-drawer G', with the register front b. To the upper

ring a¹ the single wall-drum B is riveted, which is closed on top and provided with a feed-door, C, and a smoke-escape pipe, n. By this arrangement of the feed-door above the water-jacket I avoid the objection which would attend the construction of a feed-opening through the walls a a and water-space. The water is supplied to the jacket A from a reservoir, which may be arranged in any convenient place above the radiator J, and which communicates with the jacket by means of a pipe, h, the radiator-pipes J, and the pipe F. This pipe F is carried down to a point near the lower end of the jacket A, where it communicates with the stem of a cock, E, and through this stem with the interior of the water-chamber. Out of the top ring a¹ of the jacket A, a pipe, g, rises, which is carried up and connected to the upper part of the radiator J, as shown in Fig. 1, and through this pipe the heated water rises on its way to the radiator or radiators, as the case may be. Any desired number of pipes F g may be applied to the water-jacket A, according to its capacity for heating water, and the different arrangements of radiators required about a building.

If at any time it is desired to draw off the water from the jacket A, this can be readily done by means of the cock E, a cock being also applied to the pipe h, so as to cut off communication with the reservoir which supplies the feed-water.

When fire is made in the chamber R, and the water in the jacket A becomes heated, the heated water will rise through pipe g, and after circulating through the radiator, will return through pipe F and the stem of cock E back into the jacket, thus causing circulation of the water as long as heat is supplied to it.

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

The draw-off cock E and pipe F connecting with the stem thereof, in combination with a double-wall water-jacket inclosing a fire-chamber, R, substantially as and for the purposes described.

GEORGE NIXON.

Witnesses:

A. ROELOFS,
D. BERGIN.