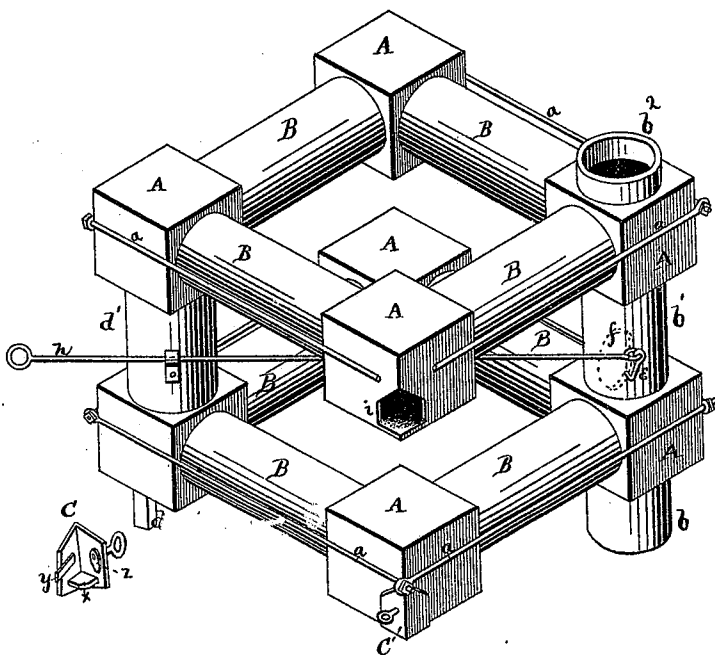


W. H. ALLARD.
Heating-Drums.

No. 151,646.

Patented June 2, 1874.



Witnesses:

H. H. Du Hamel
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UNITED STATES PATENT OFFICE.

WILLIAM H. ALLARD, OF BEAVER DAM, WISCONSIN.

IMPROVEMENT IN HEATING-DRUMS.

Specification forming part of Letters Patent No. 151,646, dated June 2, 1874; application filed December 20, 1873.

To all whom it may concern:

Be it known that I, WILLIAM H. ALLARD, of Beaver Dam, county of Dodge and State of Wisconsin, have invented certain new and useful Improvements in Radiators, of which the following is a specification:

The nature of my invention consists in the construction and arrangement of a "radiator," to be placed and used on top of any heating-stove suitable to be incased for a hot-air furnace, or to be placed and used on top of any ordinary heating-stove for heating by direct radiation.

In order to enable others skilled in the art to which my invention appertains, to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a perspective view of my radiator.

In the drawing I have represented my radiator composed of two sections; but I do not confine myself to this number, as it may be composed of more than two sections, as desired, and according to the size of the room or rooms to be heated. Each section consists of four square or circular boxes or chambers, A A, made of cast or sheet metal, as desired, and forming the corners of the section. These corners are connected by means of flues or tubes B B, which may also be made of cast or sheet metal, and are united to the corners by fitting over suitable collars formed on the sides of the corners A, or by any other convenient means, the section being further strengthened by means of rods a a, with nuts on their ends. These rods may pass around the section on the outside, as shown in the drawing, or they may pass through the interior of the same, so as to be hid from view; in the latter case only their ends and the nuts being exposed. On the under side of one of the boxes or corners A, is an aperture with downward-projecting collar b, which fits around the stove-pipe collar on the stove upon which the radiator is to be placed, the opposite corner being supported on top of the stove by a foot, d. A similar section is placed on top of the first section, communication being established between them by means of short vertical connections b¹ and d', the former being directly over the connection b to the stove, and the latter at the opposite corner. On top of the corner into which the

connection b¹ leads, is a collar, b², upon which the stove-pipe is to be placed. In the connection b¹ is a damper, f, having upon one of its journals a crank, E, to which a rod, h, is attached, said rod passing diagonally across and through the casing, so that by simply pulling on or pushing in this rod the damper will be operated, or when the radiator is to be used without the casing, the damper may be operated by an ordinary damper-rod. When the damper f is open direct draft is established, allowing the products of combustion to pass directly up into and through the stove-pipe; but when the damper is closed the smoke and heat will pass in both directions through the lower section, up through the connection d' into the upper section; thence in both directions through the same to the opening b² into the stove-pipe, heating the hot-air chamber or room during its passage by direct radiation. In the outer corner of each corner box or chamber A, is an aperture, i, for the purpose of cleaning the radiator from soot and dust, and this opening is closed by an angular door, C, having a hook, y, on one side, and a pivoted latch, z, on the other side. The hook y catches on the inside at one side of the opening, and by turning the latch z, so as to catch on the other side, the door is closed tightly, preventing smoke from escaping.

When the radiator is incased it is necessary to have apertures in the casing opposite the apertures C in the radiator.

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

1. The angular door C, provided with arm y, and latch z, in combination with the rectangular chambers A, substantially as shown and described.

2. The combination in a stove-radiator, of the enlarged chambers A, flues B, and connecting-pipe d', with connecting-pipe b¹, having damper f, substantially as shown and described.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 15th day of December, 1873.

WILLIAM H. ALLARD.

Witnesses:

WM. BUTTERFIELD,
J. E. HOSMER.