

C. A. WILSON.

Radiator.

No. 24,897.

Patented July 26, 1859.

Fig. 1,

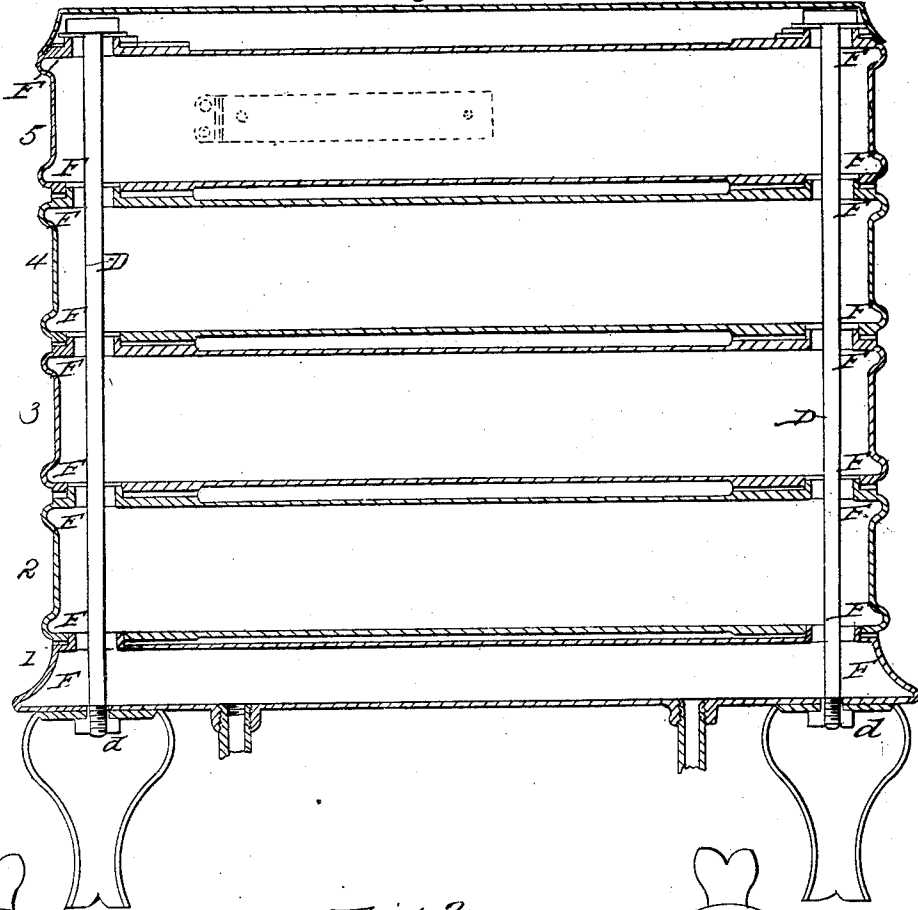
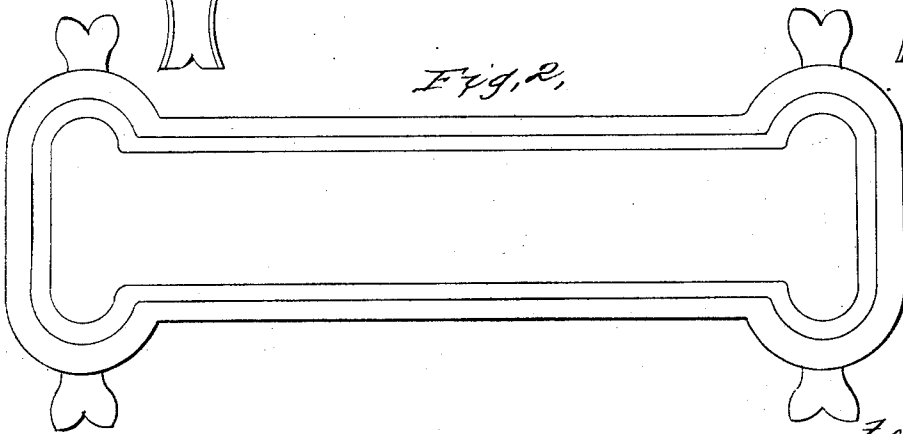


Fig. 2,



Witnesses:
Geo H Knight
C. Starnes

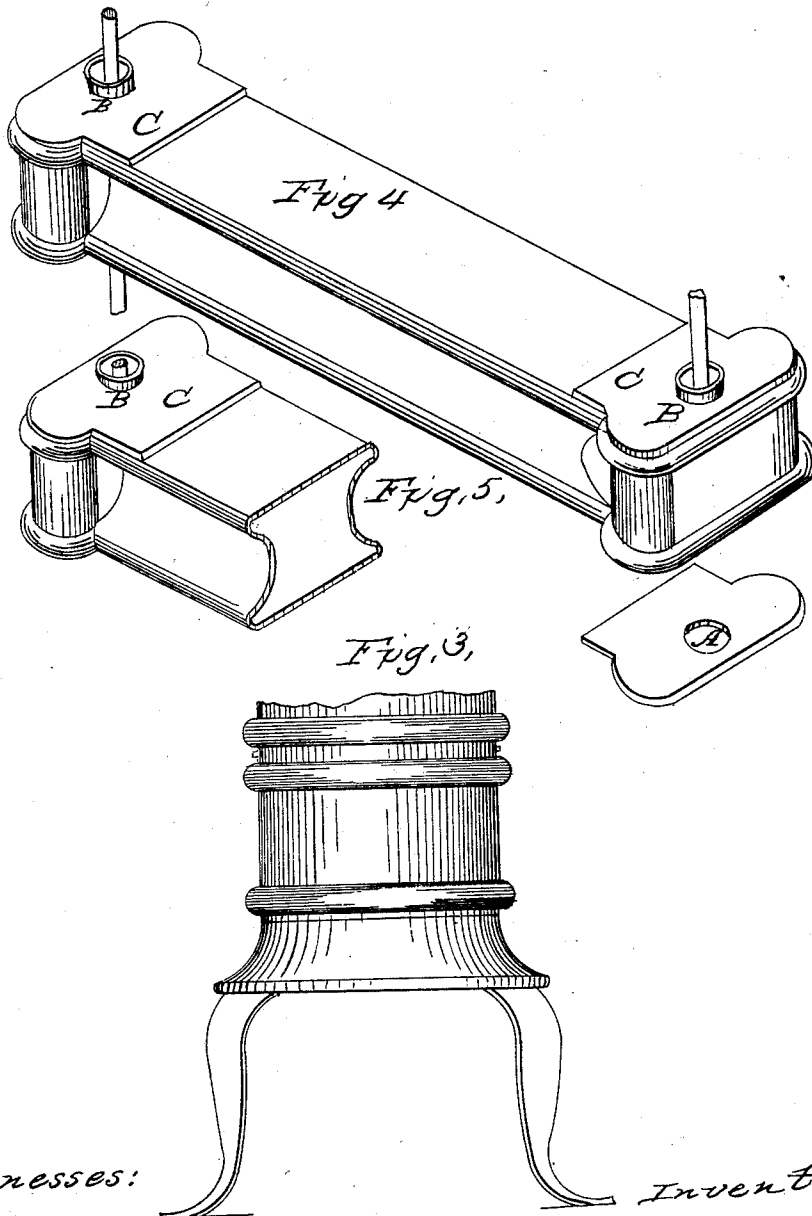
Inventor:
C. A. Wilson

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Witnesses:
Geo H Knight
Edwards Jr.

Inventor:
C. A. Wilson

UNITED STATES PATENT OFFICE.

CHAS. A. WILSON, OF CINCINNATI, OHIO.

STEAM-RADIATOR.

Specification of Letters Patent No. 24,897, dated July 26, 1859.

To all whom it may concern:

Be it known that I, CHAS. A. WILSON, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Radiators; and I hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

10 This improvement relates to that part of a house warming apparatus which is called the "radiator," and consists in an arrangement of long narrow boxes or tubes of cast iron of a peculiar corrugated form transversely and so adapted to each other, and to suitable tie bolts that they can be built one upon another, and form a connected series of chambers of any height required so as to increase or diminish the amount of radiating surface the occupancy of floor being the same and so that the different sections may undergo unequal expansion without suffering any strain of their substance or loosening of their joints.

25 In the accompanying drawings Figure 1 is a longitudinal section. Fig. 2 is a top view. Fig. 3 is a partial end view. Fig. 4 is a perspective view of a "section." Fig. 5 is a perspective view of a part of a "section."

30 1, 2, 3, &c., are tubes called "sections," of cast iron having the represented or equivalent transverse corrugations F in order that they may expand with the tie bolts, or yield to their contraction. These sections are secured in a horizontal position one above another so as to form collectively a vertical tier, or stack. Each section has in its lower side

two circular apertures A to receive corresponding but slightly smaller teats or nozzles B which project from the tops of all except the lowest section. Each nozzle is surrounded by a boss C for the two fold purpose of limiting the entrance of the nozzle B into the section above and to afford a seat or shoulder for the retention of red lead and tow or other suitable luting or gasket. Screw bolts D traverse the sections from top to bottom, and are secured below the bottom one, by nuts *d* and thus serve to hold the sections firmly together. E are pipes for the entrance and escape of steam.

It will be seen that the tier may be extended or abbreviated to any desired extent in a vertical direction without affecting the required amount of floor room by simply adding to or subtracting from the tier one or more sections, and applying rods (D) of the requisite length.

I claim as new and of my invention herein, and desire to secure by Letters Patent:

The described arrangement of a series of tubes or boxes 1, 2, 3, &c. provided with corresponding apertures A and nozzles B, to permit circulation of steam and receive bolts or rods D, which extend from top to bottom of the tier, the whole being adapted in the manner set forth to admit of varying the extent of radiating surface while that of the floor room occupied remains unchanged.

In testimony of which invention, I hereunto set my hand.

C. A. WILSON.

Witnesses:

GEO. H. KNIGHT,
C. STEEMER.