(No Model.) 2 Sheets—Sheet 1.

F. V. WINTERS.

STAND BOILER FOR STOVES OR RANGES.

No. 589,454. Patented Sept. 7, 1897.

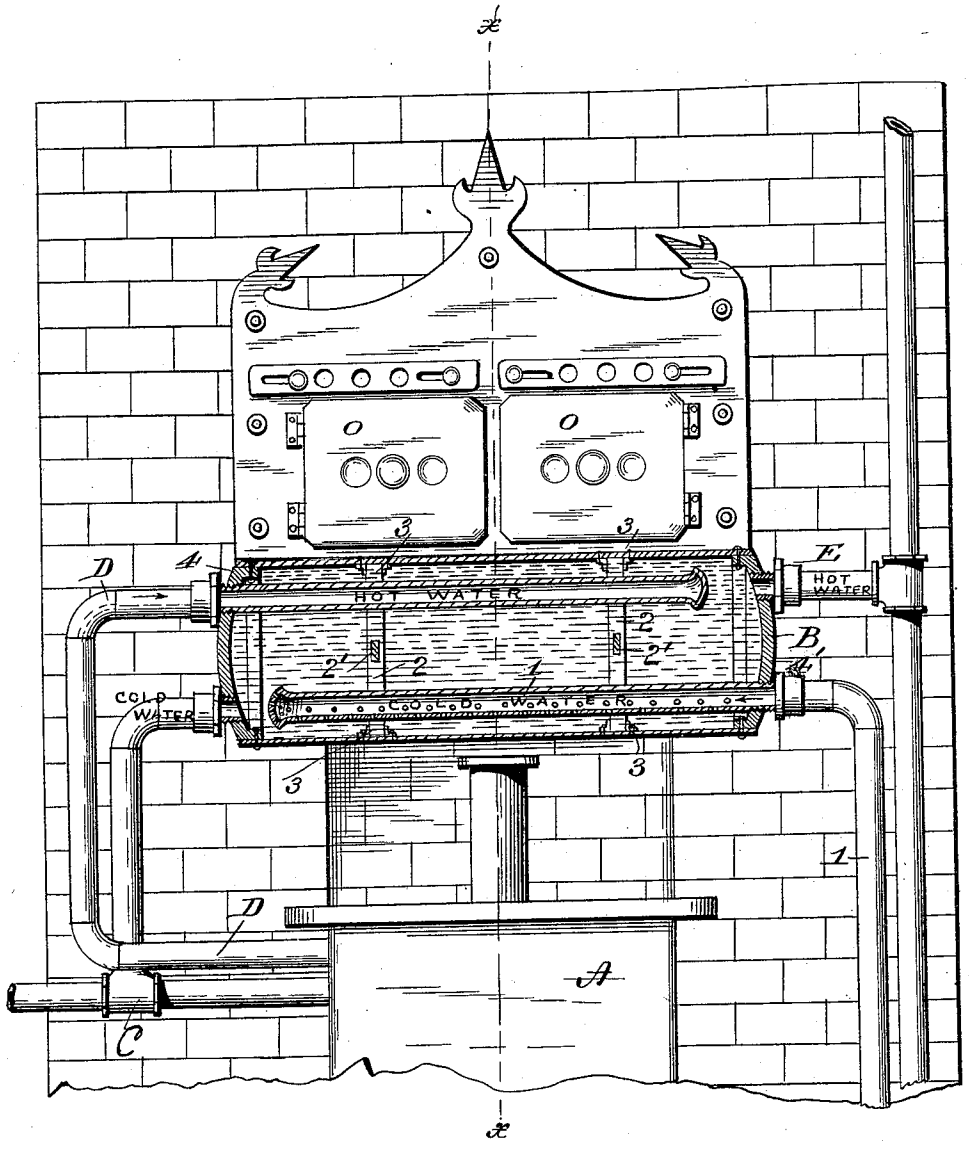


Fig. 1

Witnesses
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Geo. H. Evans

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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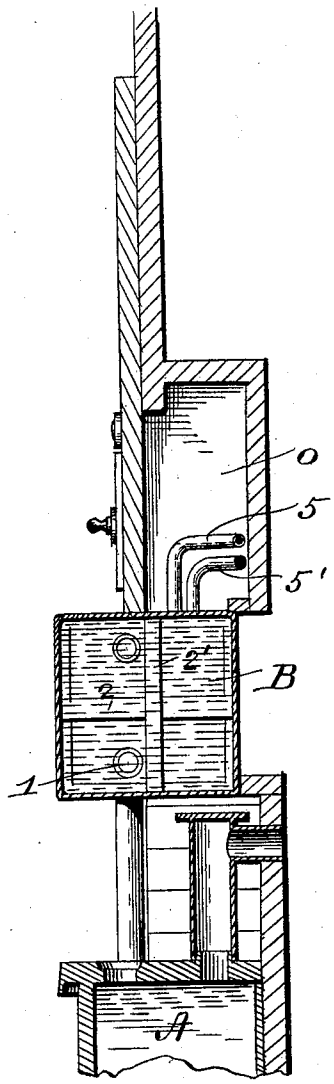


Fig. 2

Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK V. WINTERS, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JOHN A. YORK, OF SAME PLACE.

STAND-BOILER FOR STOVES OR RANGES.

SPECIFICATION forming part of Letters Patent No. 589,454, dated September 7, 1897.

Application filed September 26, 1896. Serial No. 607,070. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK V. WINTERS, a citizen of the United States of America, residing at New York city, in the State of New York, have invented certain new and useful Improvements in Stand-Boilers for Stoves, Ranges, or Furnaces, of which the following is a specification.

My invention has relation to improvements in stand-boilers; and the object is to provide a boiler of the kind named and for the purposes intended which is safe to a great degree and which is of a particular make and construction, adapting it to serve as a warming-oven heater in addition to the usual purpose of heating the water.

I have fully and clearly illustrated my invention in the accompanying drawings, to be taken as part of this specification, and wherein—

Figure 1 is a front view in elevation showing the boiler built in the brickwork of a range, the boiler being shown in longitudinal vertical section. Fig. 2 is a vertical section taken on the line *x x* of Fig. 1.

In the drawings the boiler is shown as being arranged in horizontal position and utilized as a warming medium for warming-ovens arranged over the boiler. Referring to the drawings, A designates a stove or range provided with the usual water-back. (Not shown.) B designates the boiler, fed or supplied with cold water by a pipe 1, let through the head, as usual, and extending well into the boiler, as shown. This cold-water feed-pipe 1 may be perforated throughout the length of that part extending into the boiler, or it may be intact and have a perforated cap on its end in the boiler. C designates the cold-water pipe, leading from the boiler and into the water-back. D is the return hot-water pipe, leading from the water-back and extending into the boiler, as shown, and E is the hot-water pipe which conveys the heated water from the boiler through the distributing-pipes. These several pipes are arranged in operative relation and are secured at their points of entrance in the boiler by any well-known means.

The boiler B consists of a strong metal shell made rectangular in cross-section, the opposite sides of the shell being braced by substantial brace rods or bars 2 2′, arranged at right angles to each other with their ends stayed and secured in socket-pieces 3, suitably fastened to the inner faces of the boiler, substantially as shown in the drawings. The heads 4 4′ of the boiler are substantial square plates of metal secured in the boiler-shell by the usual fastening-rivets, as indicated in the drawings.

The upper boiler-head 4′ is made convex-concavo and has a depending annular flange, as shown, fitting the interior of the boiler-shell and by which it is secured in place, and the head 4, being that at the bottom of the boiler when in vertical position, is flat and has an annular flange by which it is secured to the shell of the boiler. When the boiler is laid horizontally and utilized for the bottom of a warming oven and shelf, the ends may both be convex-concavo.

There may be other cross-braces used in addition to those shown, but in an ordinary stand-boiler of the construction set forth two sets are sufficient to serve the purposes intended.

A boiler made rectangular in cross-section is particularly adapted to be built in the brickwork over ranges, as shown, and when so arranged it is preferable to allow it to project outward, as shown in Fig. 2 of the drawings, the projecting flat upper surface serving the purposes of a shelf on which utensils or articles can be put when their contents are to be kept warm, and the inner upper surface may form the bottom or floor of the ovens. And above the boiler are made warming-ovens O O in which articles can be placed and kept warm. Pipes 5 5′ may be arranged contiguous to the vertical walls of the warming-ovens, the ends of the pipes opening in the boiler, as indicated in Fig. 2 of the drawings.

What I claim is—

In a stove or range provided with a water-back, the combination of a rectangular boiler, square in cross-section arranged above the stove or range with its upper face projecting to form a shelf, a system of circulating-pipes

connected to the water-back and leading into the boiler, a warming-oven on the boiler, a portion of the top thereof forming the bottom for the oven and steam-pipes leading from the boiler into the oven and arranged against the inner face of the ends and back walls of the oven.

In witness whereof I have hereto set my hand in the presence of two attesting witnesses.

FREDERICK V. WINTERS.

Attest:
A. G. HEYLMUN,
JNO. A. YORK.