

W. McILVAIN.
BOILER FOR STOVE.

No. 172,143.

Patented Jan. 11, 1876.

FIG. 1

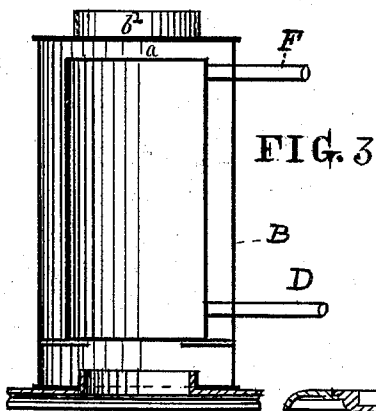
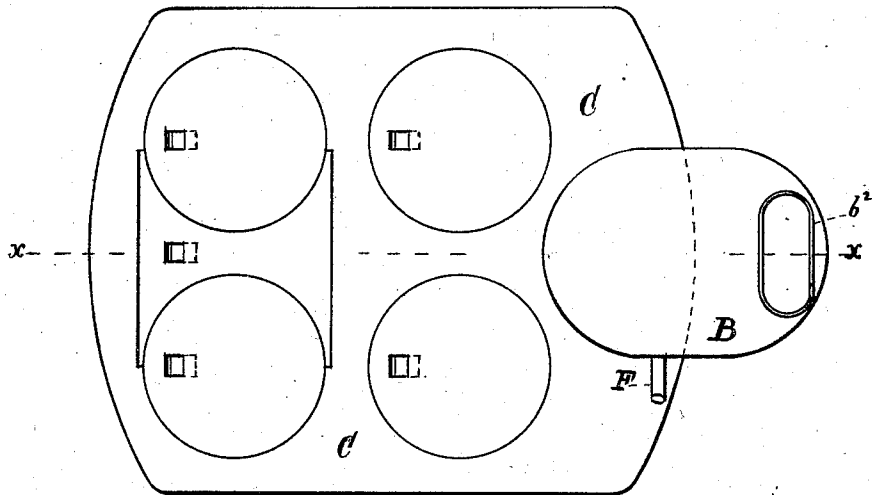


FIG. 2

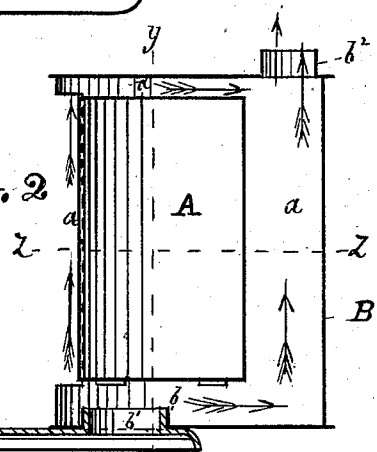


FIG. 5

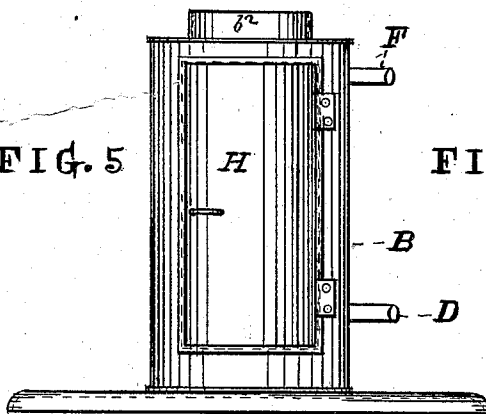
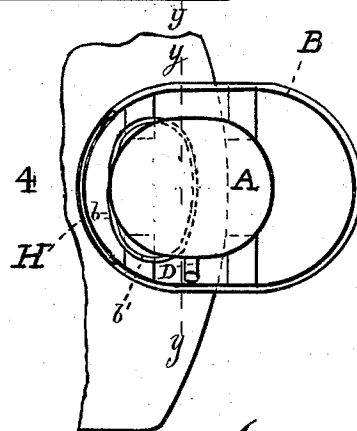


FIG. 4



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM McILVAIN, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BOILERS FOR STOVES.

Specification forming part of Letters Patent No. **172,143**, dated January 11, 1876; application filed December 21, 1875.

To all whom it may concern:

Be it known that I, WILLIAM McILVAIN, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Boilers for Stoves, Ranges, &c., which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

My invention consists in the combination, with a stove, range, or other heater, of a boiler, having a case which forms a hot-air flue all around it, and feed and exit pipes, an opening through the bottom of the case communicating with the stove or range, and a collar for the connection of the smoke-pipe with the top plate of the case, whereby the products of combustion, as they ascend into said hot-air flue from the stove or range, or other heater, circulate around the boiler as they ascend through the flue into the smoke-pipe, and thereby heat the water in the boiler, as hereinafter fully described.

In the accompanying drawings, Figure 1 is a plan view of my improved boiler. Fig. 2 is a vertical section at the line *x x* of Fig. 1. Fig. 3 is a like view at the line *y y* of Figs. 2 and 4. Fig. 4 is a horizontal section at the line *z z* of Fig. 2. Fig. 5 is a front elevation.

Like letters of reference in all the figures indicate the same parts.

A is the boiler, and B a metallic case of such form and dimension when connected with it as to form a flue, *a*, all around it for the passage of the products of combustion from the stove or other heater. C is the top plate of an ordinary flat-top cooking-stove. The

bottom plate of the case B has a collar, *b*, which fits around the collar *b'* of the plate C, to provide for the passage of the products of combustion into the flue *a* above mentioned. The draft of the smoke-pipe, which is placed on the collar *b'* of the top plate of the case B, causes the products of combustion to pass upward and around the boiler A, and thence through the collar *b'* into the smoke-pipe, (not shown in the drawings,) whereby their heat is utilized in heating the water in the boiler. D is the feed-pipe through which the cold water flows into the lower part of the boiler, and F the exit-pipe through which the hot water passes from the upper part of the boiler to the bath-room, or from which it is drawn for culinary or other purposes.

In the drawings the boiler is represented as held up in its place in the case B by means of cleats or projecting arms of the case. It may, however, be held up in any other convenient manner. H is a door in the front of the case B, for the purpose of forming a passage for the removal of the boiler A for cleaning it out.

I claim as my invention—

The combination of the boiler A, having an induction or feed pipe, D, and an exit-pipe, F, and the case B, having collars *b* and *b'*, with the top-plate C, of a stove or other heater, having a collar, *b'*, substantially in the manner and for the purpose set forth.

WILLIAM McILVAIN.

Witnesses:

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