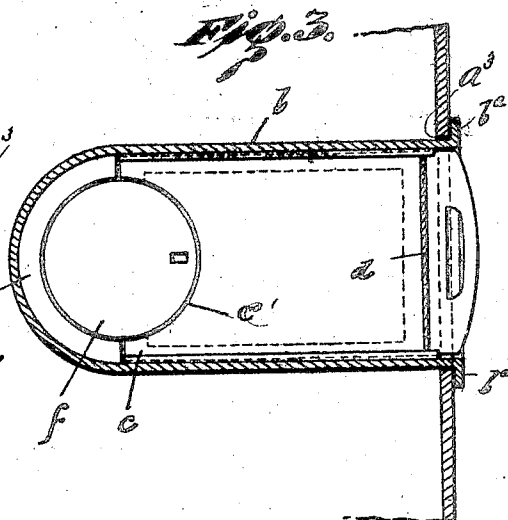
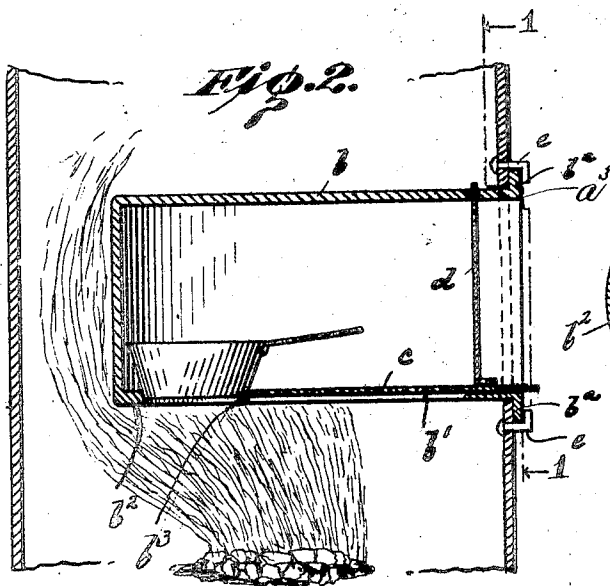
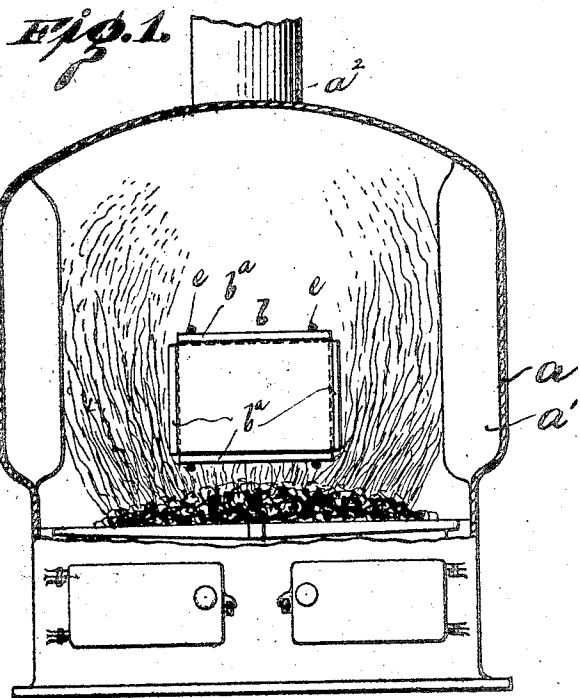


V. KALFUS.
WATER BOILER APPLIANCE.
APPLICATION FILED APR. 6, 1914.

1,104,511.

Patented July 21, 1914.



Witnesses:
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UNITED STATES PATENT OFFICE.

VICTOR KALFUS, OF NEW YORK, N. Y.

WATER-BOILER APPLIANCE.

1,104,511.

Specification of Letters Patent.

Patented July 21, 1914.

Application filed April 6, 1914. Serial No. 829,799.

To all whom it may concern:

Be it known that I, VICTOR KALFUS, a subject of the Emperor of Austria-Hungary, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Water-Boiler Appliances, of which the following is a specification.

With the hitherto used construction of water boilers such as used in apartments, and wherein the water pipes or chambers are arranged at the sides of the furnace, the heat is not completely utilized, as the flame is allowed to pass directly into the chimney.

The present invention has for its object to provide means that can be readily inserted into water boiler furnaces and removably attached thereto for deflecting the flame toward the water pipes or chambers and to thereby cause a more rapid heating of the water and which at the same time will serve as an oven.

In the accompanying drawing, in which similar reference characters denote corresponding parts Figure 1 is a cross section on line 1—1 of Fig. 2; Fig. 2 is a vertical section through the furnace with the appliance in working position and Fig. 3 is a cross section thereof.

a denotes an ordinary water boiler furnace having water chambers *a'* or the like and *a²* denotes the chimney. Ordinarily the water chambers are arranged at the sides around the grate and the flame is allowed to pass straight up into the chimney, so that considerable time is required to heat the water.

My new appliance consists of a hollow metal casting or body *b* which is adapted to fit in the coal supply opening *a³* of the furnace through which it may be inserted into the latter. The body *b* may be of any suitable shape and of such size, that when placed into the furnace there will be free spaces or passages between it and the water pipes or chambers, and the back. The body, when inserted in the furnace, will thus divide the flame, deflecting the branches thereof toward the water pipes or chambers and thereby causing a more rapid heating of the water. The body may be held in position by flanges *b^a* provided at its forward

end which rest against the outer surfaces of the furnace as indicated in Fig. 2. Additional means may be provided for holding the appliance in working position. In the present example I use bolts *e* which are rotatably fastened in the furnace and have hook shaped ends to engage the flanges of the body *b*. The body *b* has an open bottom *b'*, which may be ordinarily closed by a slide *c*.

When it is desired to introduce a fresh charge of coal the slide alone is moved outwardly, while the body *b* may be left in the furnace.

It is of course understood that while the body *b* is in the furnace the door for the coal opening may remain open. The flanges *b^a* may be made to form a tight closure, preventing the escape of smoke and the influx of air.

To enable the body *b* to be utilized for cooking or boiling purposes, I provide at the inner end of the bottom a semi-circular flange or strip *b²* having a downwardly flaring edge *b³*. The slide *c* has a semi-circular recess *c'* which is provided with a downwardly flaring edge and which with the semi-circular flange forms a circular opening for a lid *f*. Over the opening *b²* a pot may be placed, when the body is in the furnace. There may also be a vertical slide *d*, to close the forward open end of the body *b*, when used for cooking or boiling.

What I claim and desire to secure by Letters Patent is:

An appliance for water boiler furnaces, consisting of a hollow body having an open end and an open bottom, a semi-circular flange at the inner end of said bottom, and a slide for said open bottom, said slide having a semi-circular recess which with the said flange forms a circular opening for a lid, said hollow body being adapted to be removably secured in a furnace to act as a flame deflector and to serve at the same time as an oven.

In testimony whereof I affix my signature in presence of two witnesses.

VICTOR KALFUS.

Witnesses:

E. D. JUNIOR,
D. KLEIN.