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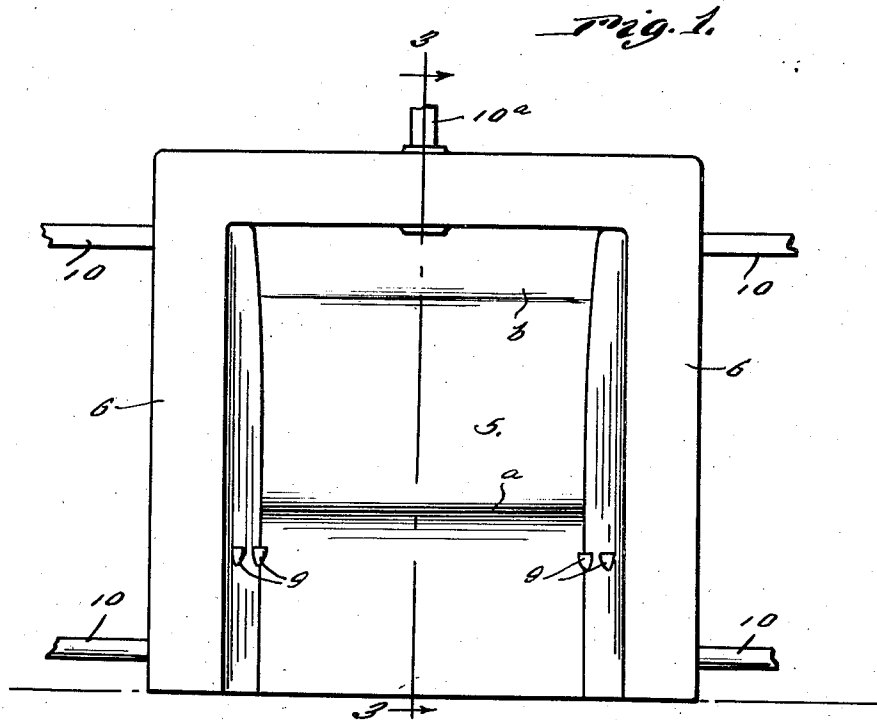
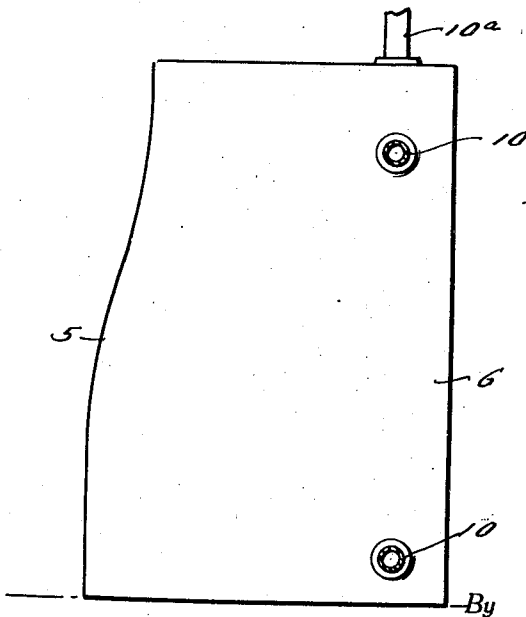
C. H. HAM

2,185,665

FIREPLACE BOILER

Filed April 23, 1938

2 Sheets-Sheet 1



Inventor

C. H. Ham

By

Clarence A. O'Brien
and Hyman Berman
Attorneys

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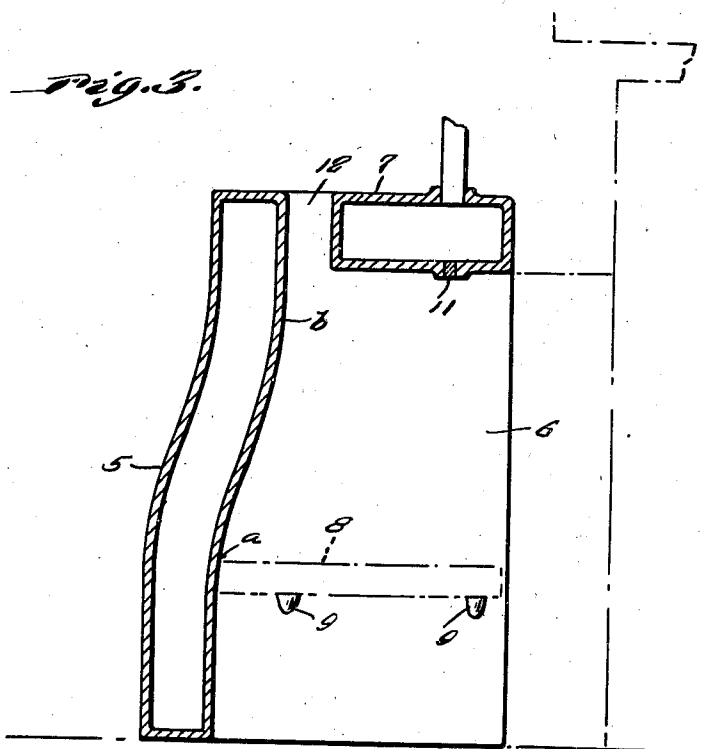
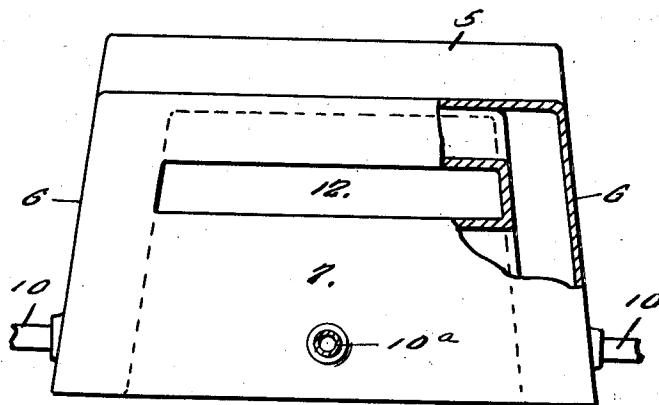
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2 Sheets-Sheet 2



Inventor

C. H. Ham

 B_y

By *Clarence A. O'Brien*
and *Hyman Berman*
Attorneys

and Hyman Berman

Attorneys

UNITED STATES PATENT OFFICE

2,185,665

FIREPLACE BOILER

Charles Helmoth Ham, Darlington, S. C.

Application April 23, 1938, Serial No. 203,923

2 Claims. (Cl. 126—132)

This invention relates to new and useful improvements in boilers, and more particularly to a water heating boiler, and more particularly to a water heating boiler attachment for fireplaces.

The principal object of the present invention is to provide a water heating attachment for fireplaces in the form of a hollow wall shell for installation in a fireplace, to the end that water can be heated for various purposes such as room heating.

Another important object of the invention is to provide a simple and inexpensive form of boiler for the purposes stated.

Other objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings—

Figure 1 represents a front elevational view of the boiler.

Figure 2 is a side elevational view.

Figure 3 is a vertical sectional view on a line 3—3 of Figure 1.

Figure 4 is a top plan view with a portion in section.

Referring to the drawings, wherein like numerals designate like parts, it can be seen that the boiler consists of a back double wall structure 5 and the two side double wall structures 6, as well as the top wall section 7 which is also of double wall construction and which extends across between the upper ends of the side wall structures 6. The inner edge of the top wall section 7 is spaced from the upper end portion of the back wall 5. As before stated, each of these walls is of hollow construction for the reception of water which will be heated by a fire on the grate 8. This grate 8 is supported by lugs 9 projecting outwardly from the inner sides of the side wall structure 6.

Pipes 10 and 11 extend from the side wall structures 6 and the top wall structure 7 respectively to various points of use.

It is preferable that a fuse plug 11 be provided in the bottom of the upper section 7 and also in the other wall structures if deemed convenient and practicable.

The space between the section 7 and the upper portion of the back wall 5 defines the flue opening 12.

As can be seen in Figure 3, the back wall structure 5 starts to curve forwardly over the grate from the point *a* to the point *b*, the latter being adjacent the upper section 7. This requires the flame and heat from the fire on the grate to contact this back wall structure over an appreciable area of its inner surface as the products of combustion pass upwardly to the flue opening 12.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention, as claimed hereinafter.

Having described the invention, what is claimed as new is:

1. In combination with a fireplace, a hollow double wall shell construction disposed into the fireplace and including spaced inner and outer sides, back and top walls providing a water chamber between the walls, said top walls cooperating to form a flat horizontal tank at the front of the fireplace connected at each side with said side walls, said tank being spaced from the back wall to form a flue opening means carried by the side walls for supporting a grate thereon, said side walls converging rearwardly and said rear wall having its portion above the grate and below the tank curved forwardly to deflect heat forwardly against the under side of said tank.

2. In combination with a fireplace, a hollow double wall shell construction disposed into the fireplace, said shell including a double back wall structure, double side wall structures and a double top wall structure, said wall structures being hollow and having direct communication with each other, said top wall structure forming a flat, horizontal tank at the front of the fireplace and spaced from the back to form a flue opening extending from one side wall to the other, all of said walls terminating in a common horizontal plane and said rear wall, below the tank being curved forwardly to deflect heat against the bottom of the tank.

CHARLES HELMOTH HAM.