(No Model.)

T. HEPE.

KITCHEN RANGE BOILER.

No. 254,973. Patented Mar. 14, 1882.

Fig. 1.

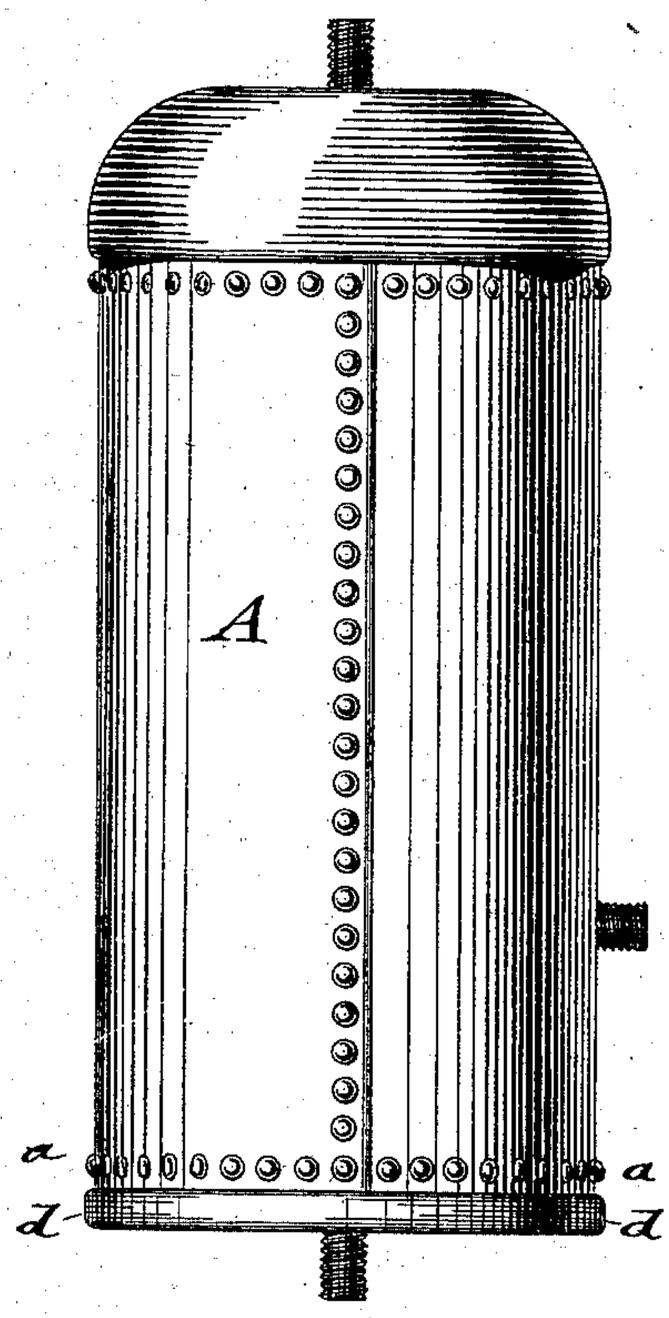
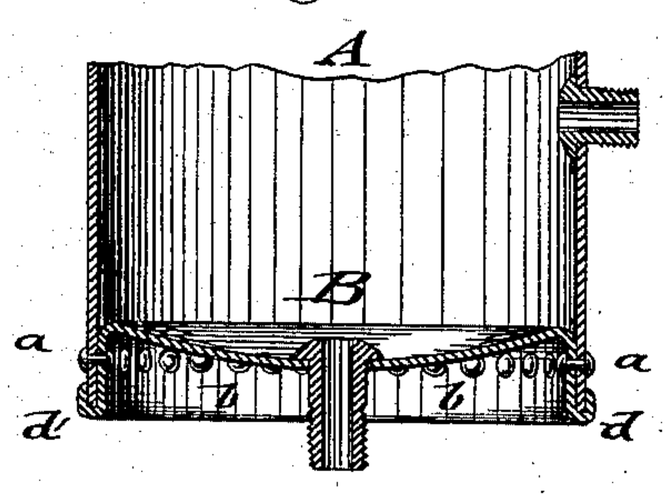


Fig. 2.



WITNESSES:

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KITCHEN-RANGE BOILER.

SPECIFICATION forming part of Letters Patent No. 254,973, dated March 14, 1882.

Application filed November 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, THEODOR HEPE, of the city, county, and State of New York, have invented certain new and useful Improvements in Kitchen-Stove Boilers, of which the following is a specification.

This invention has reference to improvements in galvanized hot-water boilers, with stamped-up steel bottoms, for ranges; and the invention relates more especially to a threefold connection of the steel bottom with the sheet-iron body of the boiler, so that the bottom edge of the boiler is fully protected against injury in shipping and handling, and leakage of the same is prevented in a most effective manner.

The invention consists of a hot-water boiler for ranges consisting of a straight cylindrical body and a sheet-metal bottom having a vertical downward flange adapted to fit the interior of the body, and an outward and upward return-flange of less depth than the downward flange, the said body and bottom being united, first, by a series of rivets passing through the body and downward flange above the upward return-flange; secondly, by means of the upward overlapping return-flange; and, thirdly, by the calking down of the edge of the return-flange, as will more fully appear hereinafter.

In the accompanying drawings, Figure 1 represents a side elevation of my improved hot-water boiler for ranges, and Fig. 2 is a vertical central section through the bottom of the same.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A designates the body of my improved hot-water boiler for ranges, which body is made of sheet-iron which is riveted to the bottom head at the overlapping joint. The bottom edge of the body A is secured to the stamped-up steel bottom B first by a row of rivets, *a*, which pass through the iron body A, and a downwardly-extending flange, *b*, of the steel bottom B. The flange *b* of the bottom B is stamped up with an outwardly-bent U-shaped rim, *d*, into which the lower edge of the body A is set. The rim *d* is tightly secured to the lower part of the body A, and its upper exterior edge is calked down on the same. By means of the rivets *a*, the U-shaped annular rim of the bottom B, and the calking a threefold connection between the body A and bottom B is obtained, which not only protects the lower edge of the body of the boiler against injury while handling it in shipping and setting up, but which forms such an intimate connection between body and bottom that the otherwise frequent leakage at this point can never occur. The boiler is finally galvanized, and forms a very durable and strong boiler for kitchen-ranges.

I am aware that the English Patent No. 1,450 of 1863, shows a metallic can in which the bottom is provided with a downward inner flange and an upward outer return-flange of greater depth than the inner flange, which bottom may be riveted to the body by rivets passing through the body and outer flange above the inner flange. In this case the outer flange is not calked to the body, and the rivets passing through the outer flange would serve to indent it, producing an irregular surface, which would interfere with a proper calking thereof. Moreover, the rivets do not pass through the inner flange, and such a joint does not have the strength and security of mine, and would be of doubtful utility in a range-boiler.

I am also aware that a coal-hod has been made in which the bottom has a downward inner flange and an upward outer return-flange of equal depth with the inner flange, the body and bottom being united by rivets passing through both flanges, the intermediate body, and the base or hoop. In this case the rivets are near the outer edge of the return-flange, and the latter is not and cannot be properly calked.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A range-boiler consisting of a sheet-metal body with a suitable top and a sheet-metal bottom having a vertical downward flange adapted to fit the interior of the body, and an outward and upward return-flange of less depth than the downward flange overlapping the lower edge of the body, the downward flange being riveted to the body above the return-flange, and the return-flange being calked to the body below the rivets, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

THEODOR HEPE.

Witnesses:
PAUL GOEPEL,
CARL KARP.