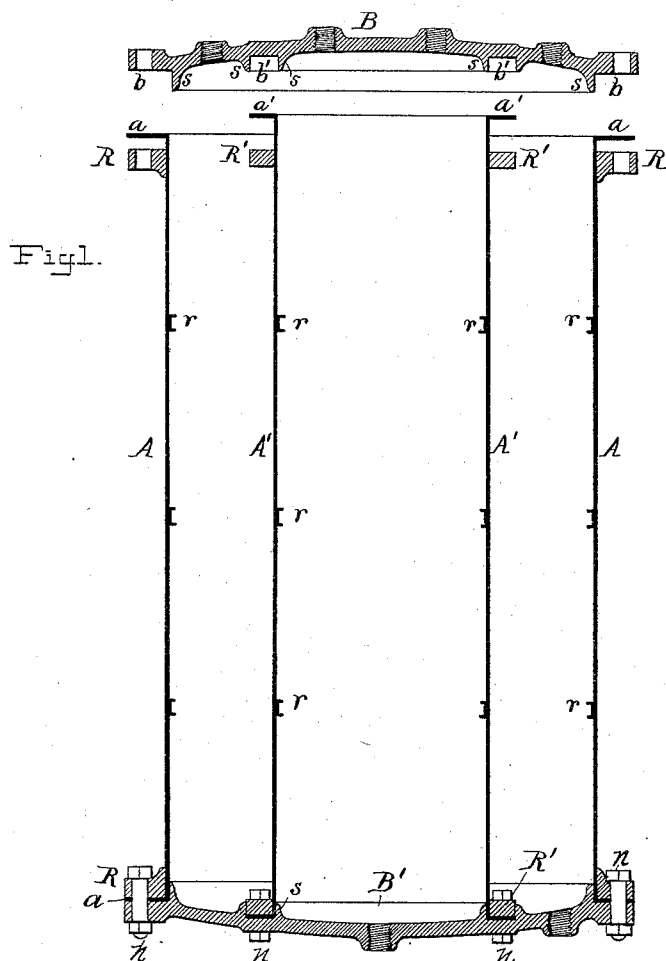
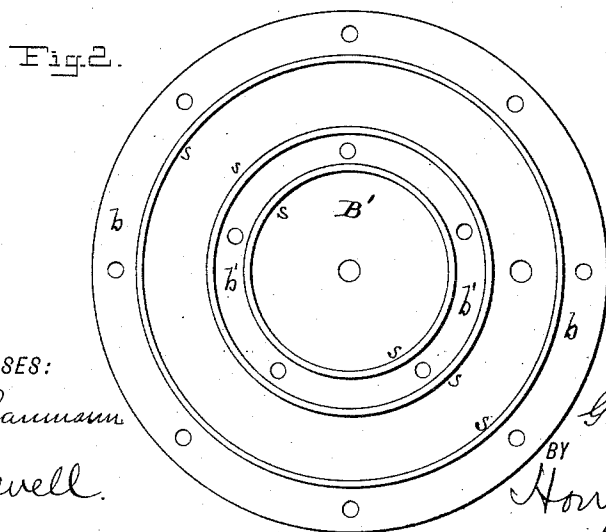


(No Model.)

G. BEJSOVEC.
RANGE BOILER.

No. 430,823.

Patented June 24, 1890.



WITNESSES:

George Baumann
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UNITED STATES PATENT OFFICE.

GOTTLIEB BEJSOVEC, OF NEW YORK, N. Y.

RANGE-BOILER.

SPECIFICATION forming part of Letters Patent No. 430,823, dated June 24, 1890.

Application filed December 13, 1889. Serial No. 333,654. (No model.)

To all whom it may concern:

Be it known that I, GOTTLIEB BEJSOVEC, a subject of the Emperor of Austria-Hungary, and a resident of New York city, New York, have invented Improvements in Hot-Water or Range Boilers, of which the following is a specification.

The object of my invention is to make a hot-water boiler or kitchen or range boiler of economical construction, which will admit of being readily taken apart and repaired in a short time and at little expense, and yet when in use will be strong and have tight joints. These hot-water or kitchen boilers as usually constructed, whether single or double, have either been made wholly of sheet metal or sheet metal combined with cast metal. Where they are made wholly of sheet metal, flanged sheet-metal heads have been soldered to flanged bodies. Where cast-metal heads have been used in connection with sheet-metal bodies, the latter have been either soldered to the heads or have been clamped by rings and bolts to plane heads. Where soldering is used, it is a tedious and expensive job to repair a boiler, for the head has to be cut off and the body reflanged, and when it has been repaired the boiler is left much shorter than it was originally. Where it is attempted to secure the sheet-metal bodies to plane heads by clamping-rings, it is difficult, if not impossible, to get sufficiently tight joints. To meet these difficulties, I make my boiler with a sheet-metal body or bodies, in combination with cast or wrought-metal heads having annular grooves to receive the flanged ends of the body or bodies within the grooves, in which they are secured by clamping-rings and bolts and nuts or screws, so that perfectly-tight joints are secured.

In the accompanying drawings, Figure 1 is a vertical section of a hot-water or bath or kitchen boiler constructed in accordance with my invention, with the upper head shown detached, but without pipes and fittings, as they may be of any usual construction. Fig. 2 is a plan view of the lower head detached.

In the drawings I have shown my invention as applied to what is termed a "double boiler"—that is, one with inner and outer chambers; but my improvements may be equally well applied to a boiler with a single chamber.

The cylindrical bodies A and A' of the boiler are formed of sheet metal with flanged ends *a* and *a'* and strengthened in the ordinary way at suitable points by the flanged rings *r*.

The heads B and B' of the boiler are formed of cast or wrought metal, preferably brass, and are provided with suitable openings threaded or otherwise for the introduction of the inlet and outlet pipes in any suitable way. On the inner face of each head I form one or more annular grooves *b* and *b'* for the reception of the flanged ends of the body or bodies of the boiler. If it is a double boiler, as illustrated, there will be an inner annular groove *b'*, as well as an outer groove *b*; but if it is a single boiler there will be only an outer groove *b*. For convenience of manufacture and economy of metal these annular grooves are formed by making flanges *s* on the inner faces of the metal heads at the points where the grooves are needed, and in the case of the outer groove *b* only one such flange *s* on the inner side is necessary. In connection with these annular grooves *b* and *b'*, I provide rings R R' to fit in the annular grooves and clamp the flanges of the sheet-metal bodies A A' between the bottoms of the grooves and the rings, suitable bolts and nuts or screws *n* being provided for this purpose. With this construction, whereby the sheet-metal flanged ends are securely clamped in the grooves of the heads, tight joints are obtained; but when it is desired to repair the boiler it can be very easily taken apart and put together again without reducing its size.

I claim as my invention—

A hot-water boiler having a body or bodies of sheet metal with flanged ends, in combination with cast or wrought metal heads grooved on their inner faces to receive the flanged ends of the body or bodies, rings to enter and fit said grooves and clamp the flanged ends of the body or bodies in such grooves, and securing bolts and nuts or screws, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GOTTLIEB BEJSOVEC.

Witnesses:

EDITH J. GRISWOLD,
JOHN REVELL.