

G. W. BOLLMAN.
HOT WATER RESERVOIR.

No. 186,103.

Patented Jan. 9, 1877.

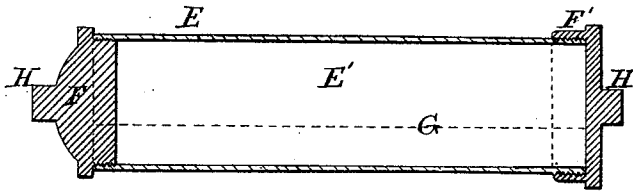


Fig. 1.

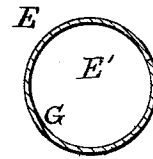


Fig. 2.

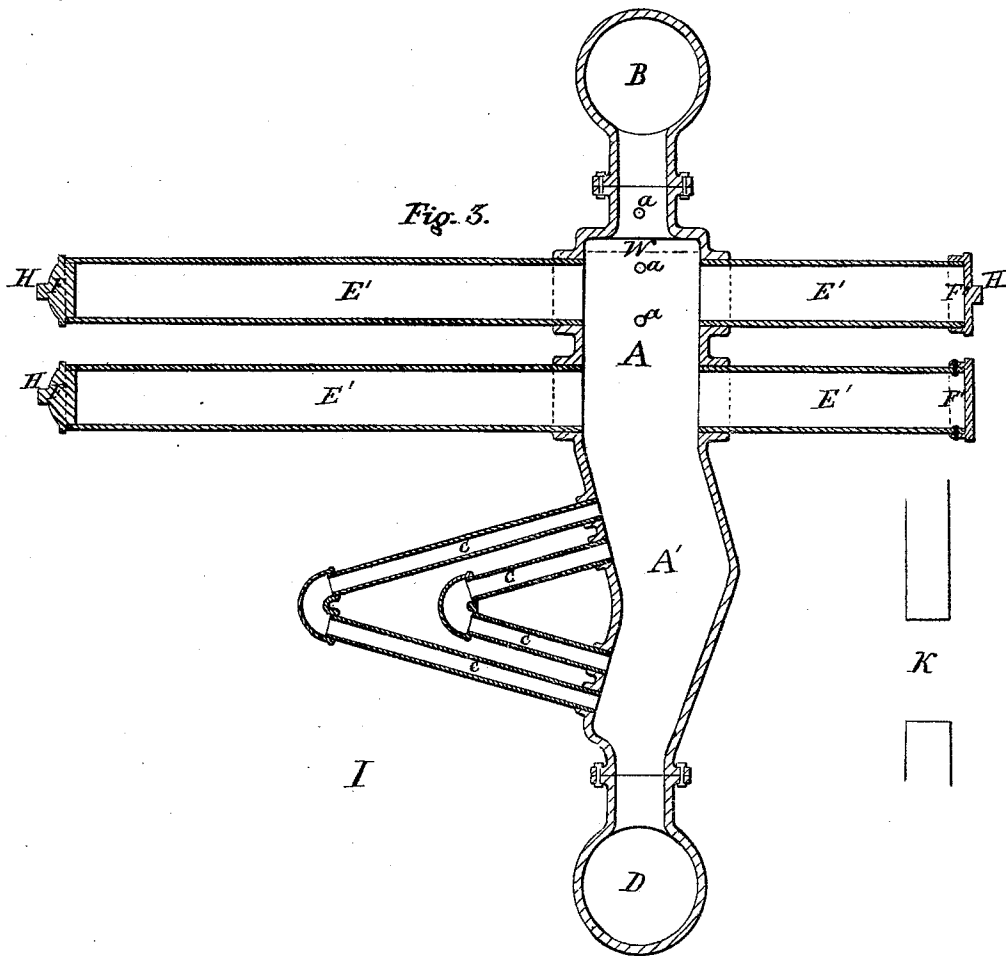


Fig. 3.

Robert Schubert.
Benjamin Evans

George W. Bollman,
by Wm. M. Cuthbert,
his Att.

UNITED STATES PATENT OFFICE.

GEORGE W. BOLLMAN, OF PITTSBURG, ASSIGNOR TO ECLIPSE STEAM MANUFACTURING COMPANY, OF SHARPSBURG, PENNSYLVANIA.

IMPROVEMENT IN HOT-WATER RESERVOIRS.

Specification forming part of Letters Patent No. **186,103**, dated January 9, 1877; application filed May 16, 1876.

To all whom it may concern:

Be it known that I, GEORGE W. BOLLMAN, of the city of Pittsburg, county of Allegheny, in the State of Pennsylvania, have invented a new and useful Improvement in Hot-Water Reservoirs for Steam-Generators and other Purposes, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is a reservoir having an even inside surface, the heads of which are removable when it is desired to cleanse it. This I accomplish by a tube the joint of which is welded, the head or heads being screwed in or on the shell, or riveted thereto.

In the drawings my invention is illustrated in detail, Figure 1 being a longitudinal sectional view of the invention; Fig. 2, a transverse section; and Fig. 3, a vertical longitudinal section of it as now applied to a steam-generator manufactured by the Eclipse Steam Manufacturing Company.

E' is the reservoir, E being the shell, constructed of wrought metal, and having the joint welded, said weld being shown in Figs. 1 and 2 at G, and may be either a "butt" or "lap," the lap-weld being preferable when used in connection with steam-generators, and the butt-weld for an ordinary hot-water reservoir, as it is not so expensive.

The heads are made either in the shape of a "plug," F, and screwed into the shell, or a "cap," F', and screwed or riveted in or on the shell.

H is a square boss on the head, for the purpose of turning the heads when putting them

in or on the shell, or removing them therefrom.

Water is admitted to and discharged through a pipe or pipes tapped into the shell or heads, as may be found most convenient.

A, Fig. 3, is the upright section of a sectional steam-generator. B is the steam-drum; C, steam-generators; E' E' E' E', water-reservoirs, the head F' being removed, and the shell screwed directly into A, giving free passage-way for the water, the dotted line W being the water-line; a a a a, location of gage-cocks. I is the location of the fire, the direction of which is shown by the arrows. K is the flue or opening to the smoke-stack.

It will be seen that the reservoir need not be placed in a horizontal position, but may be placed upright or inclined, as may be best suited for the particular purpose it is used for. Therefore,

What I claim, and desire Letters Patent for, is—

1. In combination with a steam-generator, the hot-water reservoir E', made of wrought metal, and having a seamless shell, the joint being welded, for the object set forth.

2. A hot-water reservoir having a seamless shell, the joint being welded with a lap or butt weld, for the object specified.

3. In combination with a hot water reservoir having a seamless shell, the heads F and F', for the object set forth.

GEORGE W. BOLLMAN.

Witnesses:

SAML. ANDERSON,
WM. M. CUTHBERT.