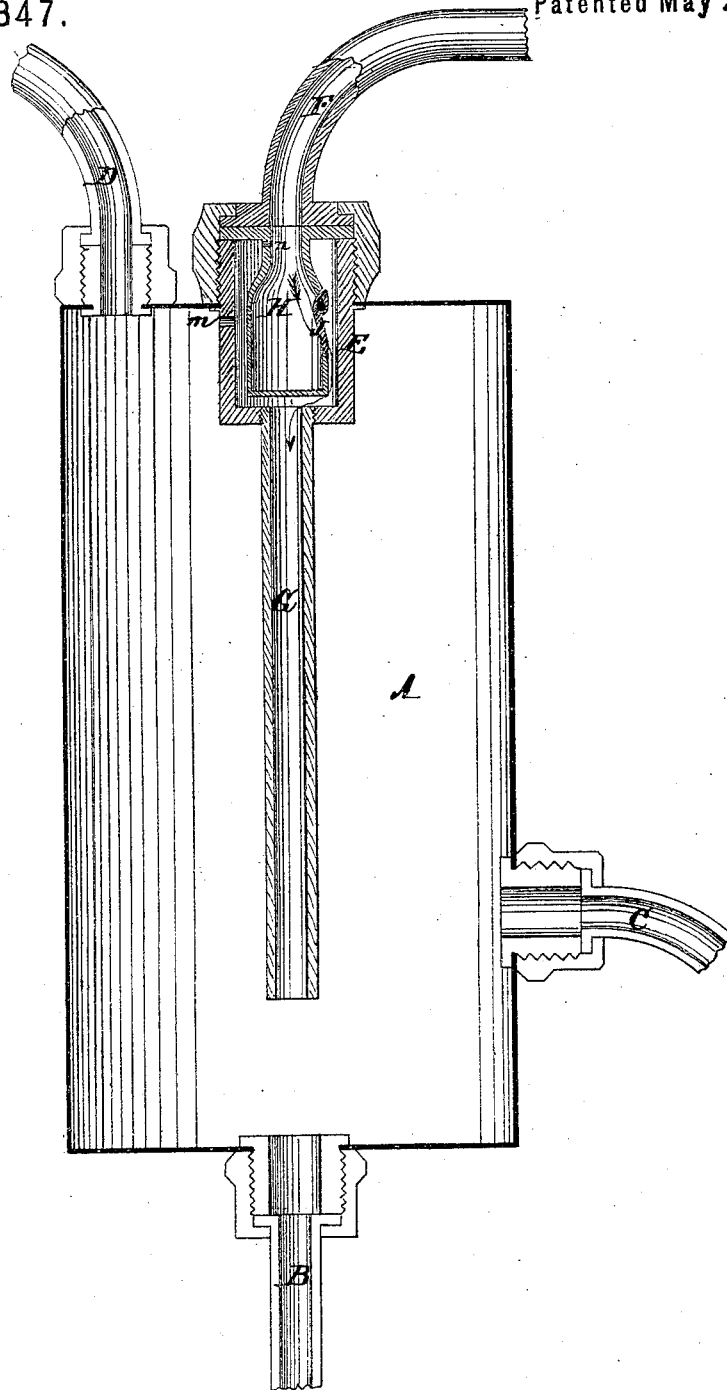


A. R. ROBB.

Improvement in Plumbers' Water-Boilers.

No. 114,347.

Patented May 2, 1871.



Witnesses

Henry C. Reader
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United States Patent Office.

ALEXANDER R. ROBB, OF BROOKLYN, NEW YORK.

Letters Patent No. 114,347, dated May 2, 1871.

IMPROVEMENT IN PLUMBERS' WATER-BOILERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, ALEXANDER R. ROBB, of Brooklyn, in the State of New York, have invented certain Improvements in "Plumbers' Water-Boilers," of which the following is a specification.

The accompanying drawing shows a section of a water-boiler embodying my invention.

My invention consists in the attachment of the inlet water-pipe to the inside of the boiler, reaching some distance below the opening of the hot-water pipe, and arranging in said pipe a check or non-return valve.

Further, in the arrangement of suitable small openings, communicating with the inlet water-pipe, for the escape of any steam which may generate in the water-boiler.

A represents a plumber's water-boiler, made in the usual form, with a pipe, B, at the bottom leading to the range and the return hot-water pipe C on the side.

D is the outlet-pipe leading to the wash-tubs and different parts of the building.

E is a chamber attached to the top of the boiler, on the upper end of which the pipe F is coupled, through which the cold water is brought into the boiler.

To the bottom of this chamber E a pipe, G, is screwed or fastened, projecting downward some little distance below the hot-water pipe C.

Into the chamber E a valve-box, H, is placed, provided with a valve, J, and communicating with the inlet-pipe F.

Near the top of the chamber E, in the inside of the boiler A, a small hole, *m*, is made, and a correspond-

ing hole, *n*, is made near the upper end, above the valve J in the valve-box H.

The water coming through the pipe F enters the valve-box H and passes through the valve J into the chamber E, and down the pipe G into the boiler A. The arrangement of the valve J prevents any back flow of the water, as the pipes G and F would form a siphon when the lower part of the pipe F is situated much below the bottom of the boiler, whereby a vacuum would be produced in the boiler, which might cause the same to collapse.

To prevent any explosion of the boiler, in case steam would be generated in the same, the holes *m* and *n* are arranged, whereby a communication is formed between the upper part of the boiler and the inlet-pipe F for the escape of the generated steam.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement of the valve-box H and valve J in the inlet-pipe F of a plumber's water-boiler, substantially in the manner and for the purpose described.

2. The arrangement of the holes *m* and *n*, substantially as and for the purpose hereinbefore set forth.

3. In combination with the inlet-pipe F, the valve-box H provided with a valve, J, the chamber E and pipe G, arranged as a plumber's water-boiler, substantially as and for the purpose specified.

ALEXANDER R. ROBB.

Witnesses:

HENRY E. ROEDER,
JOHN CHRISTIAN.