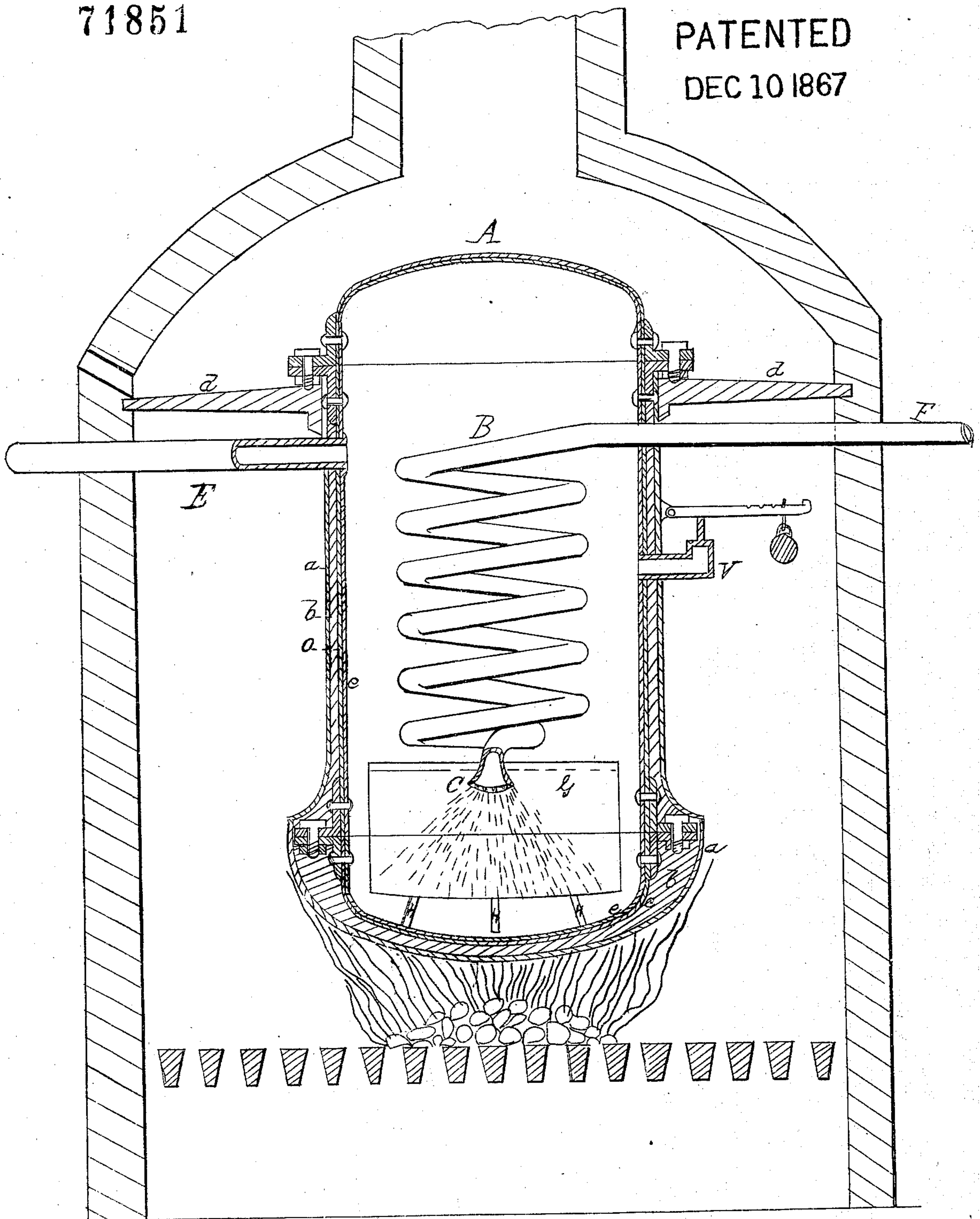


C. E. Case. Steam Boiler.

71851

PATENTED

DEC 10 1867



Witnesses:

Edw. W. Guffin
C. A. Tignor

C. E. Case

Inventor

United States Patent Office.

CHARLES E. CASE, OF XENIA, OHIO.

Letters Patent No. 71,851. dated December 10, 1867; antedated December 6, 1867.

IMPROVEMENT IN STEAM-GENERATORS.

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, CHARLES E. CASE, of Xenia, in the county of Greene, in the State of Ohio, have invented a new Cup for the Protection of the Inner Surfaces of Superheating-Steam Boilers; and I do further declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction of a metal cup, which extends upward from the lower and inner surface of the boiler sufficiently far to receive all of the water or steam which is thrown in from the feed-pump of the engine, thus preventing the sudden cooling or cracking of the boiler.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my cup, as represented in the accompanying drawings, of metal, and having experimented and tested all the metals, I find copper to be the best for this use. G represents the cup, which rests upon or is attached to the bottom of the boiler by the short legs H, which, elevating the cup, allow the steam generated in the boiler to circulate freely on all sides of it. This cup extends upward far enough to screen the boiler from the jets of water thrown into the boiler through the coiled pipe or pipes B, and above the line of the sprinkler C. The cup is made in size to be a little less than the inner diameter of the boiler, thus, by its nearness to the heated surface of the boiler, receiving the heat therefrom, and converting the water or steam into superheated steam as fast as it comes in contact with the cup.

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

The metal cup G, constructed and arranged substantially upon the principle and in the manner herein set forth.

CHARLES E. CASE.

Witnesses:

EDM. F. BROWN,

C. S. VIGUS.