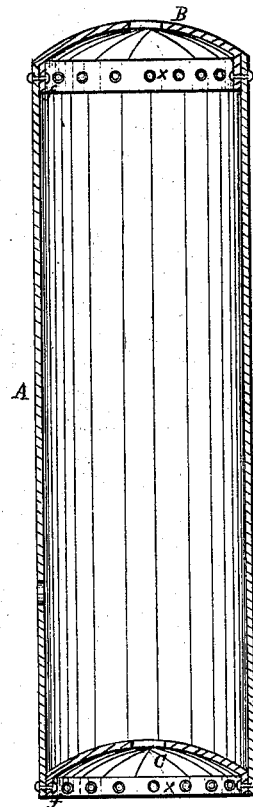
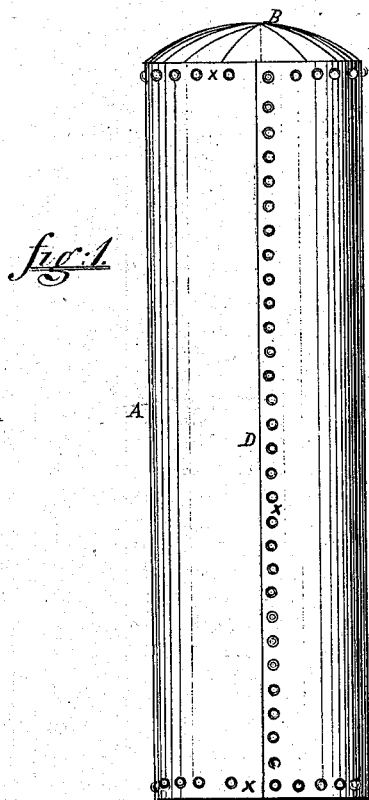


W. B. SCAIFE.

KITCHEN BOILER.

No. 107,817.

Patented Sept. 27, 1870.



Witnesses

James A. Johnston  
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W. B. Scife

# UNITED STATES PATENT OFFICE.

WILLIAM B. SCAIFE, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN KITCHEN-BOILERS.

*Specification forming part of Letters Patent No. 107,817, dated September 27, 1870.*

*To all whom it may concern:*

Be it known that I, WILLIAM B. SCAIFE, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful article of manufacture, viz., a Kitchen-Boiler; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my invention consists in making a new article of manufacture, viz., a kitchen-boiler, the ends, or tops, and bottom of which are constructed of wrought-iron, each forming a section of a sphere, and secured in and to the body of the boiler, in the manner and for the purpose hereinafter described.

To enable others skilled in the art to make and use my new article of manufacture, I will proceed to describe more fully its construction.

In the accompanying drawing, which forms part of my specification, Figure 1 is a side elevation of my improvement in kitchen-boiler. Fig. 2 is a vertical section of the same.

In the accompanying drawing, A represents the body or shell of the boiler, which is made cylindrical in form, and constructed of wrought-iron. The joint or seam D is secured by rivets and then brazed.

The ends or top B and the bottom C of the body or shell A are constructed of wrought-iron, and each form a section of sphere provided with a flange, *f*, and are fitted and secured in the body or shell A by rivets, as shown at *x*.

The joint around the ends or top B and bottom C are calked or otherwise made water and steam tight.

The body or shell A and the ends or top B and bottom C are provided with openings for the pipes used in connection with the boiler for producing the necessary circulation of water through it, and the heating device used in combination with the boiler for heating the water which may be used for kitchen, bath-room, or other purposes, which arrangement of pipes is well understood by the skillful plumber and gas-fitter.

The novelty of my new article of manufacture consists in constructing the ends or top and bottom of wrought-iron, and giving to each the form of a section of a sphere, the advantages of which consist of diminishing the weight, greatly increasing the strength and durability of the boiler without any additional cost.

The ends or top and bottom of the ordinary kitchen-boiler are made flat, and constructed of cast-iron. Such form and material for ends or tops and bottoms are very objectionable, for the difference between the expansion and contraction of wrought-iron and cast-iron renders it almost an impossibility to construct the joints around the ends or tops and bottoms so as to make them water and steam tight, and the frequent and varying pressure to which kitchen-boilers are subjected cause the flat ends or tops and bottoms to buckle or vibrate, so as to crack around the flange, thereby rendering the boiler inoperative and worthless, and very often flooding the kitchen, bath-room, or other apartments of the house with water, which is a very annoying and distressing thing to the good housewife.

From the foregoing, the advantages of my new article of manufacture will be very apparent to the manufacturer, plumber, and gas-fitter, and also to the user of kitchen-boilers.

The dome-shaped top, in addition to its strength and durability, adds greatly to the symmetrical appearance of the boiler, making it handsome, useful, and durable.

Having thus described the nature, construction, and advantages of my new article of manufacture, what I claim as being new, is—

A new article of manufacture, viz., a kitchen-boiler, with the ends or top and bottom constructed of wrought iron, and each forming a section of a sphere, substantially as herein described, and for the purpose set forth.

W. B. SCAIFE.

Witnesses:

A. C. JOHNSTON,  
JAMES J. JOHNSTON.