

W. B. SCAIFE.
Kitchen-Boiler.

No. 133,669.

Patented Dec. 3, 1872.

Fig. 1.

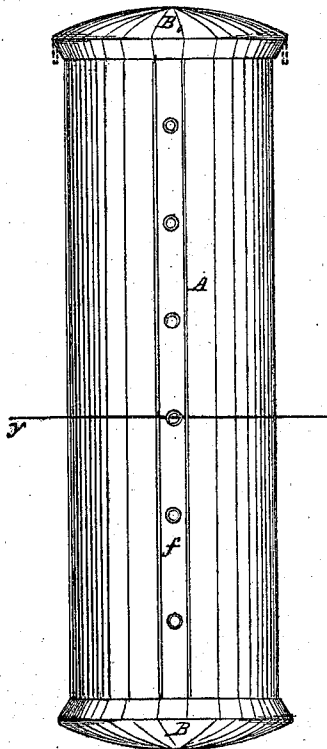


Fig. 2.

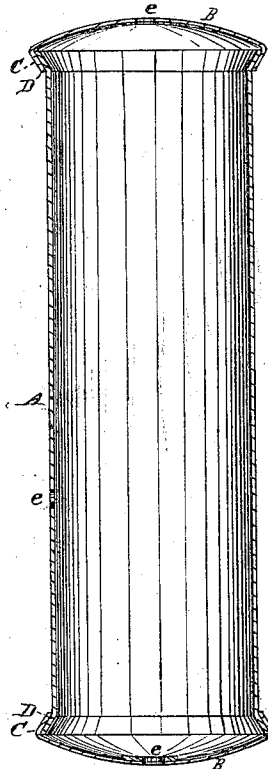
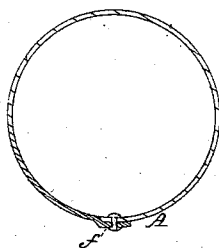


Fig. 3.



Witnesses.

Grosvenor Thomas
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UNITED STATES PATENT OFFICE.

WILLIAM B. SCAIFE, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN KITCHEN-BOILERS.

Specification forming part of Letters Patent No. **133,669**, dated December 3, 1872; antedated November 30, 1872.

CASE A.

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 Improvement in Kitchen-Boilers; and I do hereby declare that the following is a full, clear, 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 providing a new article of manufacture, viz., a kitchen-boiler, the ends or heads being secured in the cylinder or body of the kitchen-boiler by flaring out the end of the cylinder or body and then placing the flange of the end or head over the flared-out portion, and contracting it so as to form the joint between the flange of the head and the flared portion of the cylinder or body, and then brazing said joint, and rabbeting, riveting, and brazing the joint or joints in the body or cylindrical portion of the boiler.

To enable others skilled in the art to make and use my invention, 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 improved kitchen-boiler; Fig. 2 is a vertical and longitudinal section of the same; and Fig. 3 is a transverse section of the boiler at line *y* of Fig. 1.

In the accompanying drawing, A represents the body or cylindrical portion of the boiler, the side seam *f* of which is formed by forming a rabbet along one edge of the sheet from which the body A is constructed, and then fitting the other edge of the sheet in the rabbet and securing the two edges in juxtaposition by means of a few rivets, after which the joint is brazed. By constructing the joint *f* as described the joint on the interior of the boiler will be even and smooth, and very strong and durable. After the joint *f* is finished the ends of the body A are flared or spread out, as shown at D in Fig. 2. The flange C of the

head B is placed over the flared or spread portion D of the body A, as indicated by the dotted lines in Fig. 1. The flange C is then, by means of suitable tools, bent or forced in against the flared or spread portion D, as clearly shown in Fig. 2. After the heads B are secured to the body A in the manner hereinbefore described the joint between the flared or spread portion D and the flange C is brazed. *e* represents the opening for the pipes usually connected to the boiler.

The advantage of constructing kitchen-boilers in the manner herein described and shown in the accompanying drawing consists in enabling the manufacturer to construct the boiler with ease and facility, greatly diminishing the labor and lessening the cost of making them, and at the same time producing a much superior and more durable boiler than can be produced by the old mode of constructing by riveting and the calking of the joints. By securing the heads B on the body A in the manner hereinbefore described the manufacturer can readily braze the joints around the flange C, which has long been desired, for the purpose of avoiding the calking and testing process in the construction of kitchen-boilers.

I do not claim, broadly, flaring out the end of the cylindrical portion of the body of a sheet-metal vessel and contracting the flange of its ends over such flared-out part; nor do I claim, broadly, a brazed joint or joints in vessels constructed of sheet metal; but

Having thus described the nature and construction of my improvement, what I claim as of my invention is—

A new article of manufacture, viz., a kitchen-boiler with the ends of its body A flared or spread out, and the flange C of its ends B contracted over the flared or spread portion, with the joints thus formed brazed, as herein described, and for the purpose set forth.

W. B. SCAIFE.

Witnesses:

GEO. H. THOMAS,
JAMES J. JOHNSTON.