

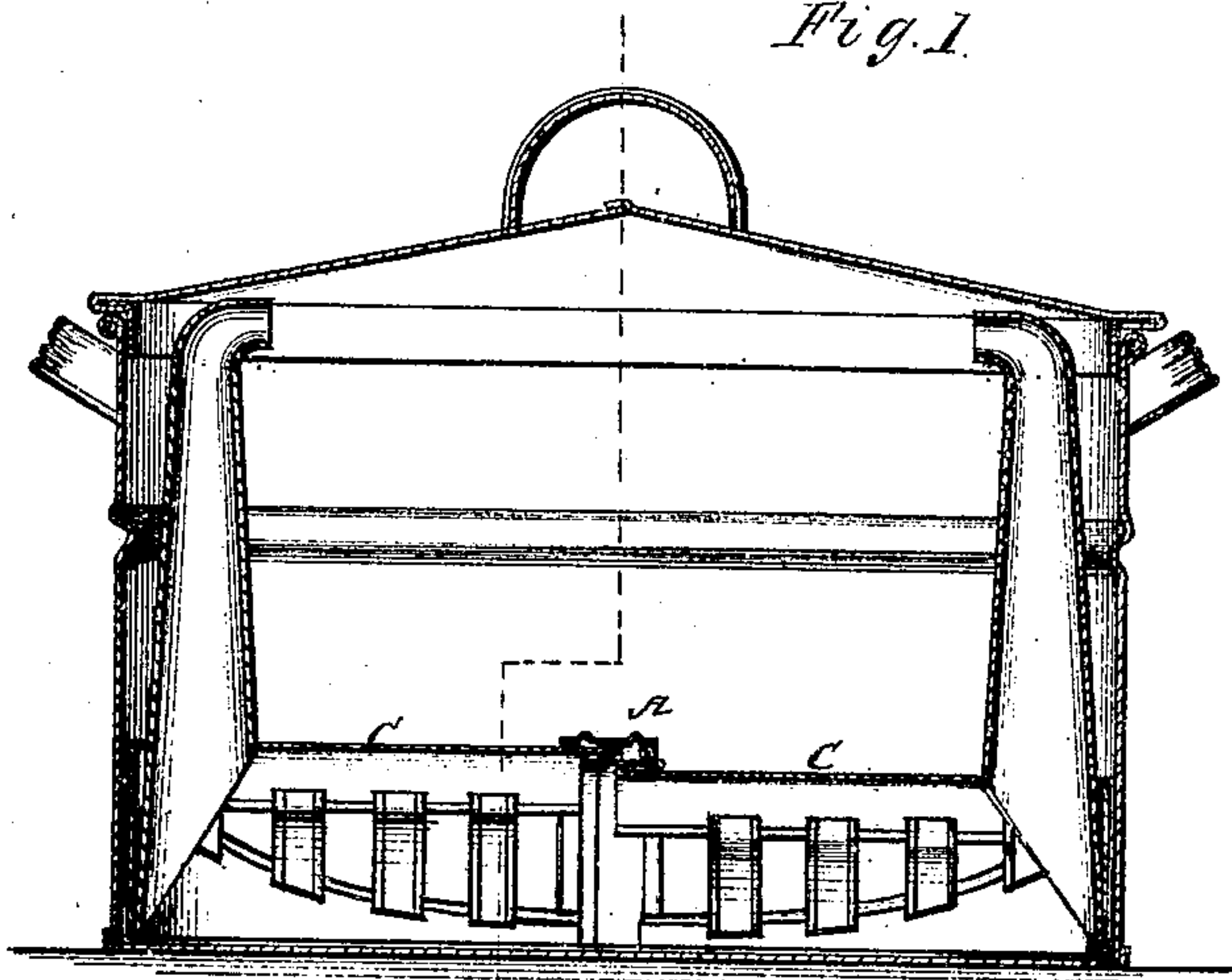
*G. E. Calkins,*

*Wash Boiler.*

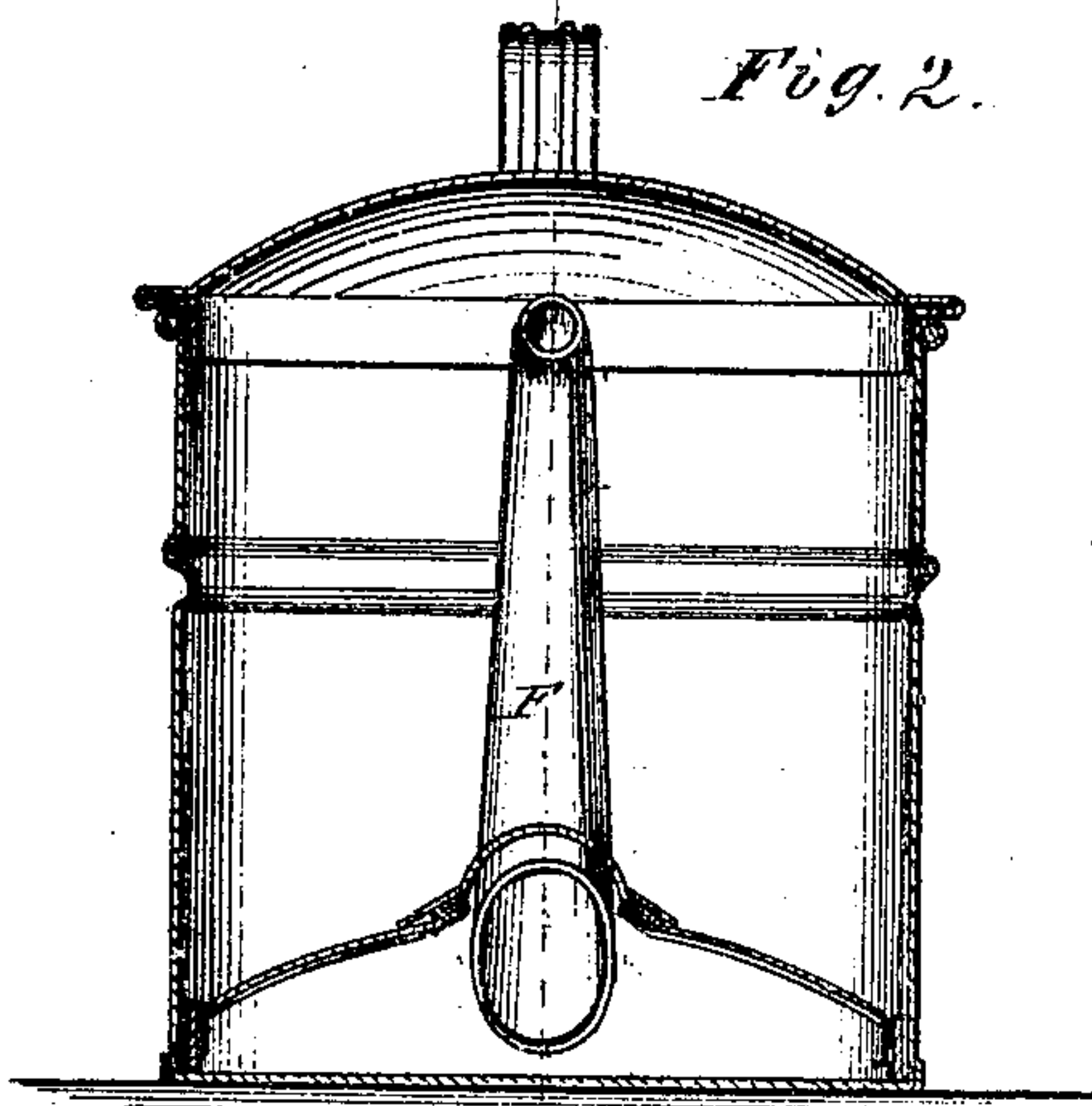
*No. 97,042.*

*Patented Nov. 23, 1869.*

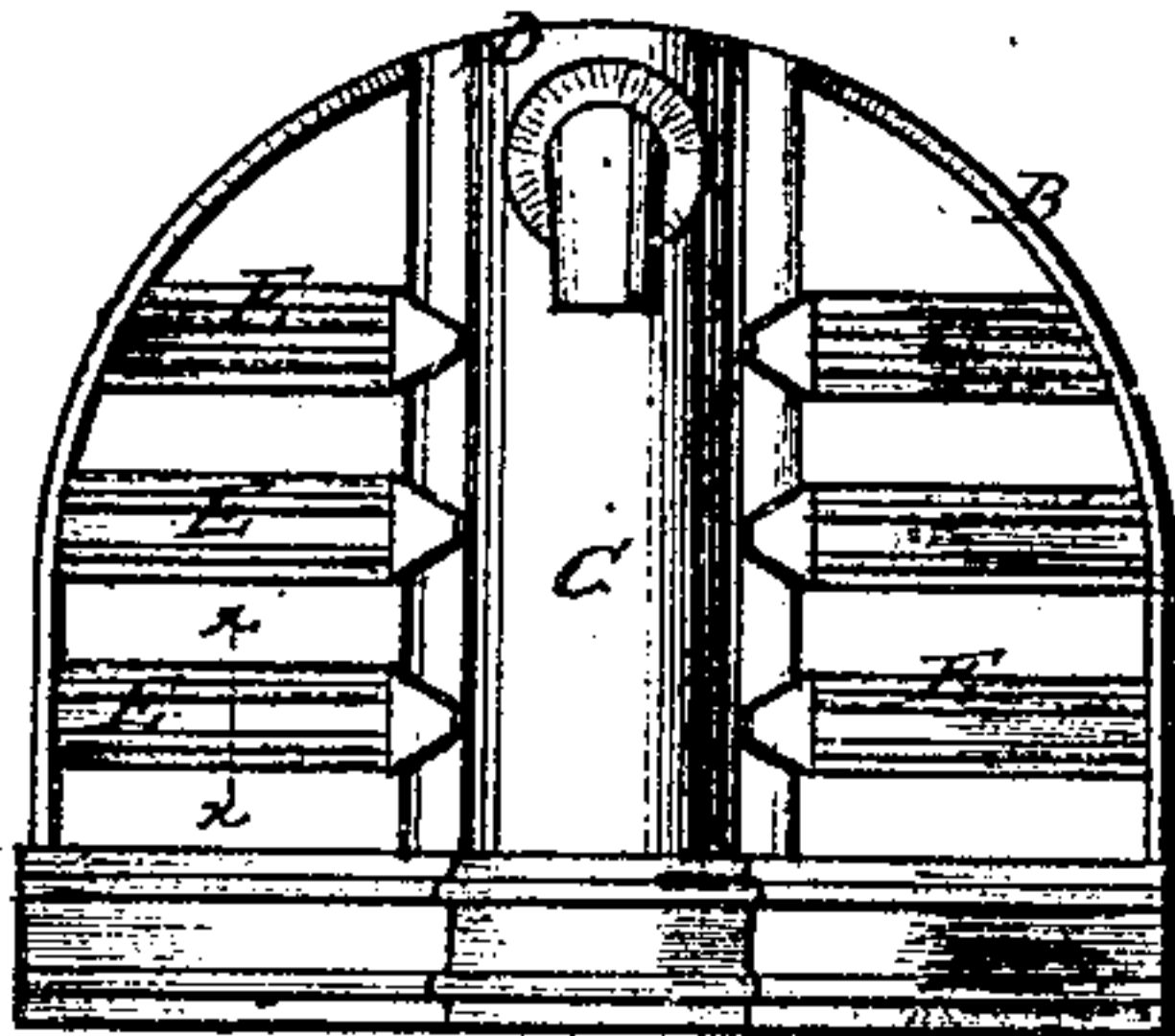
*Fig. 1.*



*Fig. 2.*



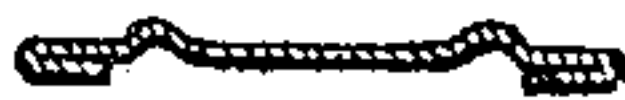
*Fig. 3.*



**Witnesses:**  
*John L. Brooks*

*David B. Glick*

*Fig. 4.*



**Inventor:**

*G. E. Calkins*  
PER *M. M. C.*  
**Attorneys.**

# United States Patent Office.

G. E. CALKINS, OF ROCK ISLAND, ILLINOIS.

Letters Patent No. 97,042, dated November 23, 1869.

## IMPROVED WASH-BOILER.

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

*To all whom it may concern :*

Be it known that I, G. E. CALKINS, of Rock Island, in the county of Rock Island, and State of Illinois, have invented a new and useful Improvement in Wash-Boilers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to improvements in wash-boilers, such as are arranged to cause a circulation of hot water and steam from the bottom upward through pipes or passages, and has for its object to provide an improved construction of the false bottom or rack, whereon the cloths rest, for keeping them above the bottom, to provide space for generating the steam.

Figure 1 represents a longitudinal sectional elevation of my improved boiler;

Figure 2 represents a transverse sectional elevation of the same;

Figure 3 represents a plan view of a part of the said bottom; and

Figure 4 represents a transverse section of one of the ribs of the said bottom, taken on the line *x x* of fig. 3.

It is important that these bottoms fit snugly at the base against the walls of the boiler, to prevent the tendency to an upward current of hot water and steam thereat, which is the place where the colder water should pass down to have the best results, but which meeting a rising current here, both would be diffused, and the circulation broken up.

It is also desirable that this bottom be highest at the centre, and sufficiently strong to bear a great weight of cloths; and it is also desirable that no raw edges of the tin be exposed to contact with the cloths, as the said raw edges rust considerably and damage the cloths.

The said bottoms require to be removed frequently

for cleansing and other purposes, to do which, when fitted snugly around the bottoms, as stated, is difficult, unless made, as I propose to make them, in two parts, and divided transversely, as shown at A.

B represents base-rims, one for each part, designed to fit snugly to the walls of the boiler, as supports for the curved plates C at the ends D, and for the braces E, on which the said plates C rest beyond the said ends.

These base-plates B, at the ends where the plates C are connected to them, are raised as high as the said plates C are required to be, but between the said ends they are curved downward proportionately to the increasing width of the boiler, so that the braces E may all have about the same curvature, giving a uniform shape to the top of the said bottom.

The plates C are curved at the top, and near the edges, in a manner to stiffen them and to make a steam-passage to the pipes F, and the said edges are turned under, to prevent the contact of the raw edges with the cloths. The braces E are ribbed, to stiffen them, and their edges are also turned under to be out of contact with the cloths. They are secured to the base B and to the plates by soldering or otherwise.

At the ends of the plates C, larger and broader braces are employed, which extend entirely over the said plates, and the two parts are so arranged that one laps the other.

Having thus described my invention,

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

A boiler-bottom, consisting of a sectional rim-base, B, curvo-convex plates C, and ribbed braces E, said parts being shaped and fitted together in the manner described.

G. E. CALKINS.

Witnesses:

DAVID DON,  
A. BAMBERGER.