

W. G. GIBSON.
Wash-Boilers.

No. 138,632.

Patented May 6, 1873.

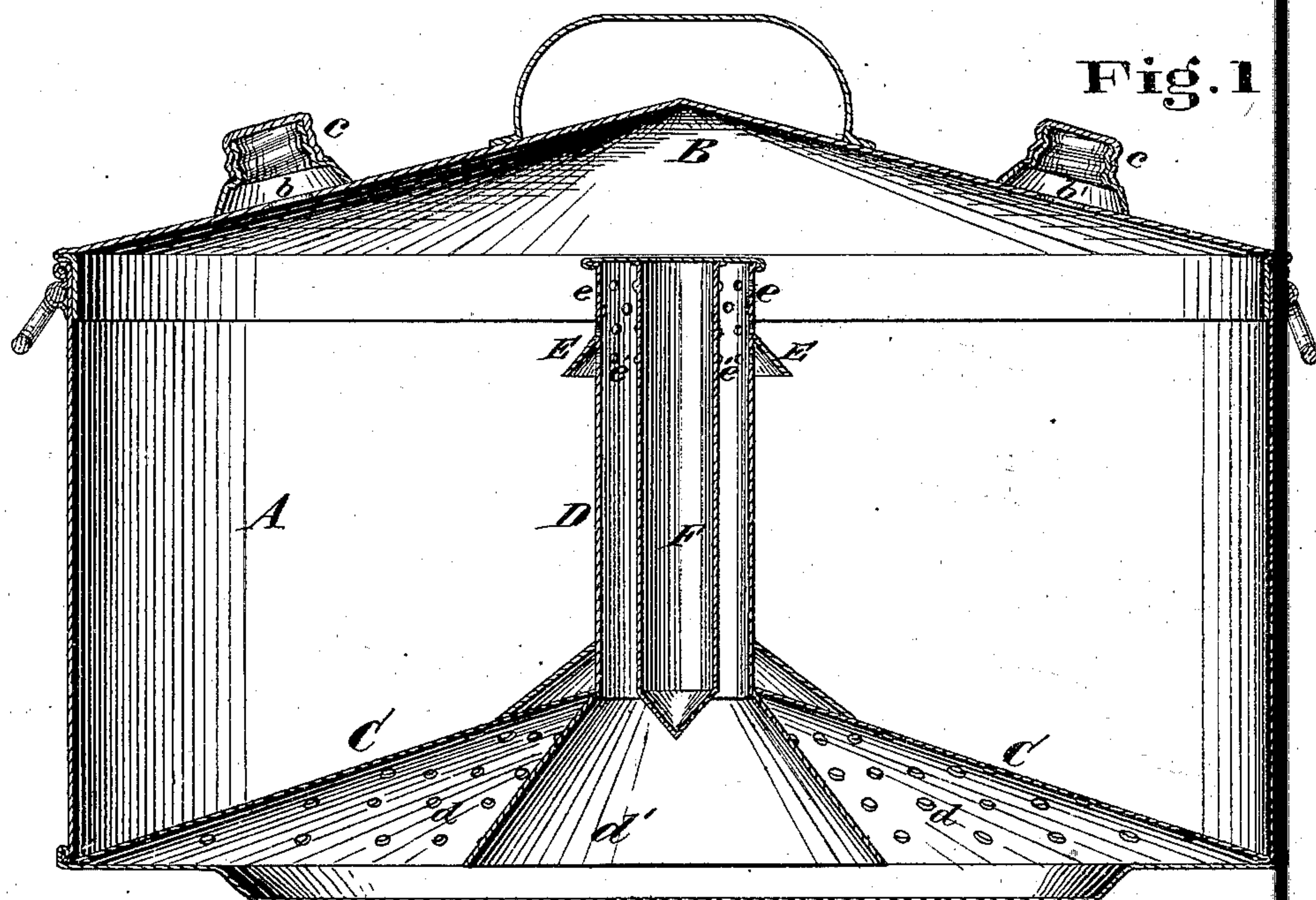
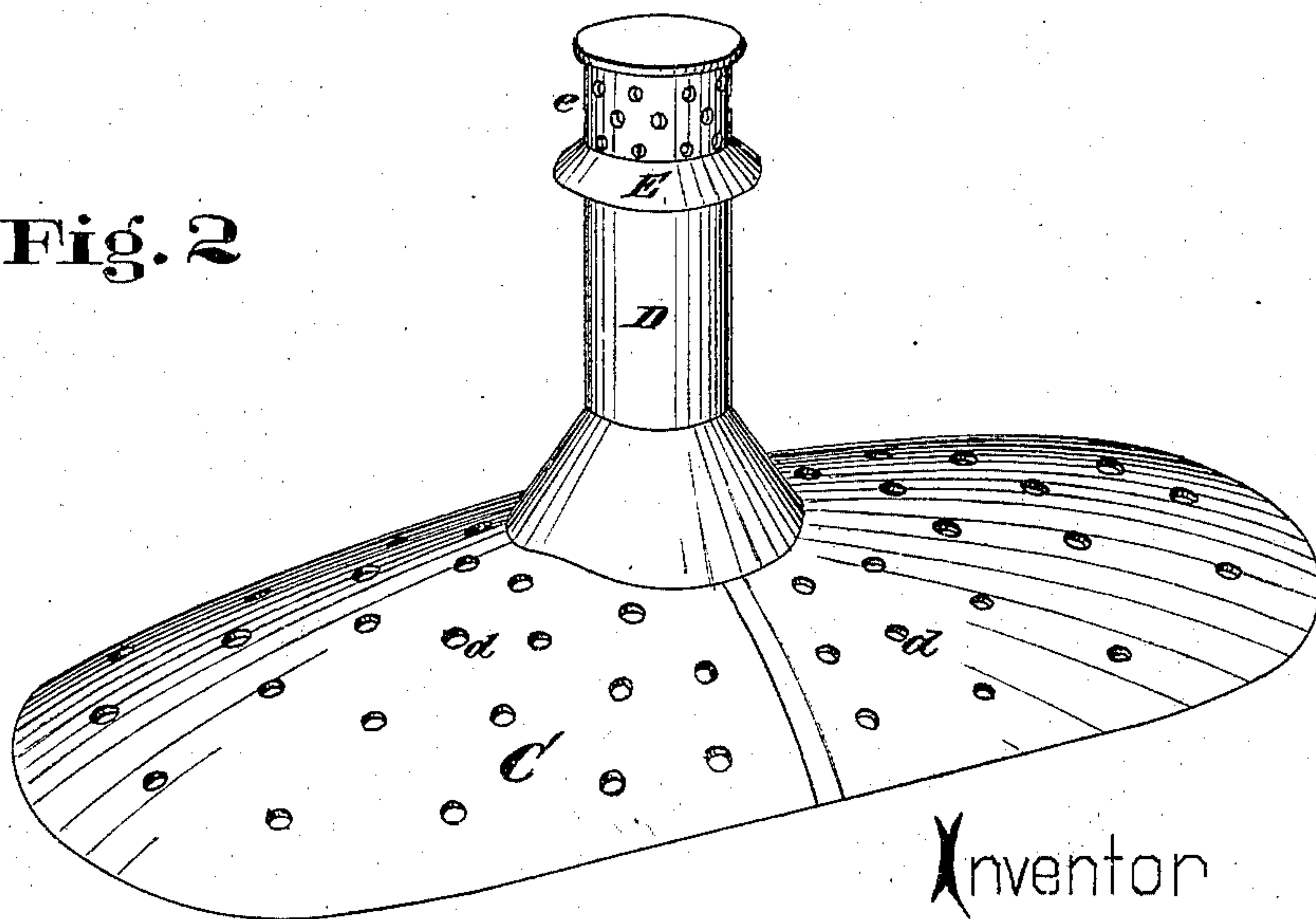


Fig. 2



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IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. **138,632**, dated May 6, 1873; application filed March 7, 1873.

To all whom it may concern:

Be it known that I, WILLIAM G. GIBSON, of Lynchburg, Highland county, State of Ohio, have invented certain new and useful Improvements in Wash-Boilers, of which the following is a specification:

Nature and Objects of Invention.

My invention relates to the class of wash-boilers in which the water is caused to circulate forcibly and automatically; and consists of peculiar devices for giving the water a higher velocity than heretofore attained, and rendering the motion of the same uniform throughout the entire area of the boiler.

Description of the Accompanying Drawing.

Figure 1 is a longitudinal section of my wash-boiler, and Fig. 2 is a perspective view of the detachable circulator.

General Description.

A is the body of the boiler; and B, the cover of the same. The latter has fitted to it screw-threaded tubes *b b'* provided with caps *c c* to match. By the removal of one or both of these caps when the water in the boiler is excessively heated, the steam may be permitted to escape sufficiently to save the necessity of taking the lid of the boiler off. By retaining the cover B on the boiler, and allowing the steam to escape by the small openings *b b'*, more water can be used in the boiler than is possible with the cover off without boiling over, and the water can also maintain a higher temperature without excessive ebullition. The circulating device of my improved boiler consists of the crowning-plate C, which forms, by reason of its flexible crowning configuration, a self-fastening false bottom to the boiler for the clothes to rest upon. The false bottom C, in order to make its flexible character available for self-fastening, is made a little wider than the width of the boiler, so that it may be "sprung" into place, and thus held by forcible contact with the sides of the boiler. It may also rest, as shown, upon the outer edges of the boiler-bottom, the crowning shape of the false bottom giving ample space below it for the passage of water in

circulation, which is received through the perforations *d* of the plate C. Firmly secured to the plate C is a central circulating tube, D, whose lower end has a funnel-shaped mouth, *d'*, which collects and directs the hottest water in such a way as to induce a violent passage of water up the tube D, and a consequent descent of water through the plate C. The upper end of tube D is closed, as shown, and the exterior of it near the upper end provided with an annular inverted trough, E, which acts as a directing-chute for a portion of the discharged water. Perforations *e* are provided in the tube D above the chute E, and perforations *e'* below it. The perforations *e* direct the water to the extreme portions of the boiler, and also equally to the surface of the boiler nearer the center. In directing the water to the central portion of the boiler, the perforations *e'* and the chute E are employed, the chute confining the distribution of the water to the portion of the boiler which the streams from the perforations *e* overreach. Suspended from the top of the pipe D is a closed tube or solid cylinder, F, whose lower end is conical, as shown. This serves, by reducing the area of the interior of tube D, to correspondingly increase the velocity of the water through it. The conical end of cylinder F offers less obstruction to the free entry of the water than any other form.

Claims.

1. The combination, in a wash-boiler, of crowning-plate C, tube D *d'*, inverted trough or chute E, and perforations *e e'*, arranged and operating substantially in the manner and for the purpose specified.
2. In the described combination with the elements of the clause immediately preceding, the conical-ended cylinder F, arranged and operating substantially in the manner and for the purpose specified.

In testimony of which invention I hereunto set my hand.

WM. G. GIBSON.

Witnesses:

FRANK MILLWARD,
P. F. GIBSON.