

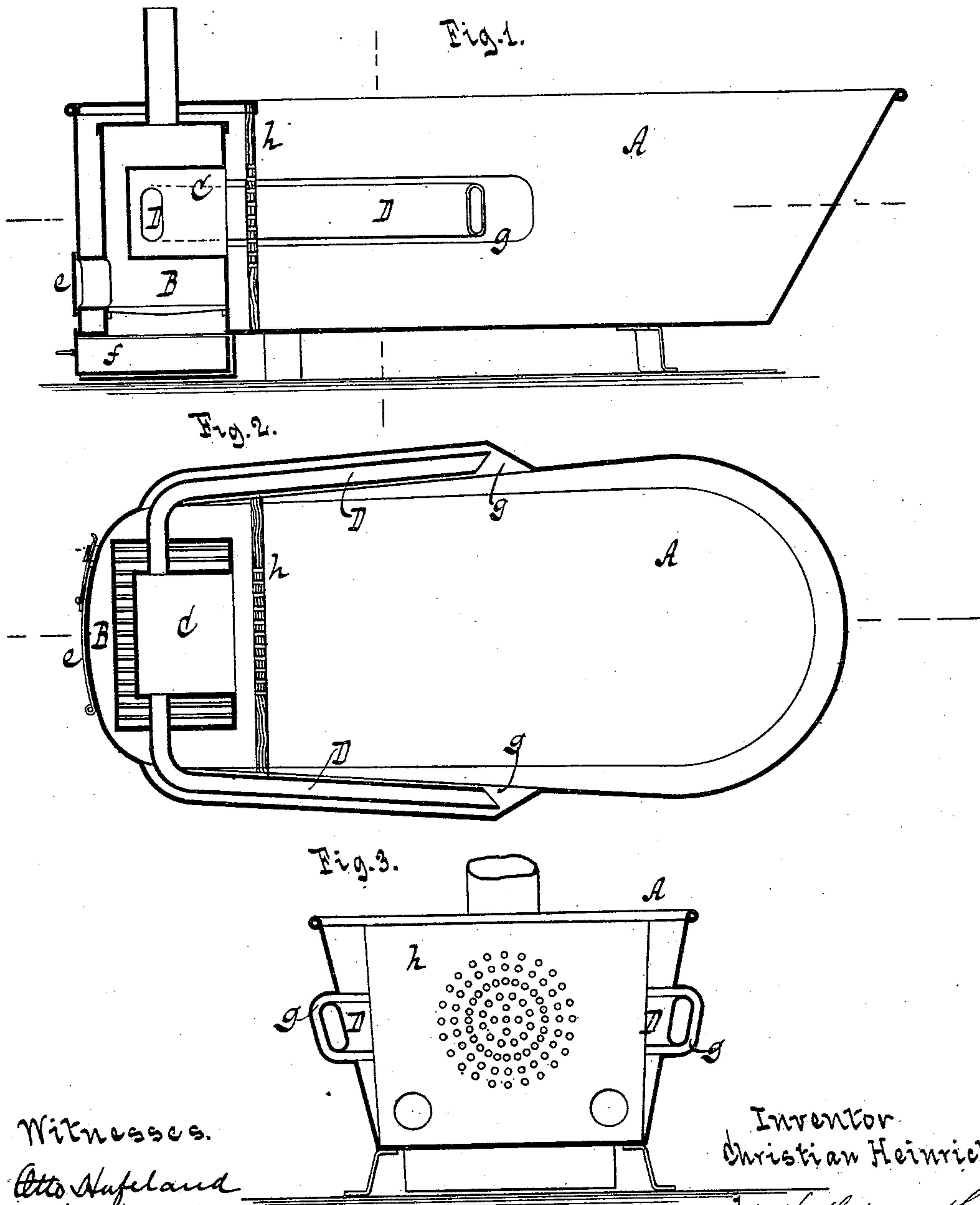
(No Model.)

C. HEINRICH.

BATH TUB.

No. 251,227.

Patented Dec. 20, 1881.



Witnesses.

Otto Hufeland  
William Miller

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# UNITED STATES PATENT OFFICE.

CHRISTIAN HEINRICH, OF NEW YORK, N. Y.

## BATH-TUB.

SPECIFICATION forming part of Letters Patent No. 251,227, dated December 20, 1881.

Application filed September 14, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, CHRISTIAN HEINRICH, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Bath-Tubs, of which the following is a specification.

This invention relates to that class of bath-tubs embodying in their structure a furnace for heating the water, such furnace being located at one end of the tub; and it consists in providing the furnace with an open-back heating-chamber, and connecting thereto open pipes, which are arranged on opposite sides of the tub, so that the water contained in the tub may circulate through the pipes, thus becoming heated with rapidity. The open pipes are sunken into recesses, to avoid obstruction therefrom to the bather.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a vertical longitudinal section. Fig. 2 is a horizontal section. Fig. 3 is a vertical cross-section.

Similar letters indicate corresponding parts. The letter A designates the body of the tub, B the furnace, C its heating-chamber, and D the pipes.

The furnace B is located at one end and within the tub A, and a door, *e*, hinged to the side of the tub, gives access to the fire-chamber of the furnace, while a pan, *f*, receives the ashes.

The heating chamber C is open at the back, where it faces the interior of the tub, and the pipes D are connected to the chamber on its opposite sides, whence the pipes extend along the opposite sides of the tub A through recesses *g*, the same terminating at about the mid-length of the tub and being left open at their terminal ends or at any other suitable point.

When the tub A is supplied with water and a fire is made in the furnace B the water en-

tering the heating-chamber C is impelled through the pipes D by ebullition, and hence a constant circulation of the water is maintained, which has the effect of its becoming heated in a rapid manner. The water is also heated by its contact with the sides of the furnace B and the pipes D, and in order to increase the effect of the pipes a space may be left entirely around them in the recesses *g*, as shown. The recesses *g* are made of such depth that the pipes D are approximately flush with the inner surface of the tub, and by this arrangement all obstruction from the pipes to the bather is avoided. A shield, *h*, is placed next to the back of the furnace B, to protect the bather against direct contact with the furnace, such shield being perforated to allow the passage of the water through it.

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

1. The combination, with a tub, of the furnace located in one end thereof, the heating-chamber C, arranged within the furnace, and having an open back in direct communication with the interior of the tub, and the pipes D, extending from opposite sides of the heating-chamber along the vertical sides of the tub and opening into the interior of the latter, substantially as described.

2. The combination substantially as hereinbefore set forth of the tub having recesses in the sides thereof, the furnace constructed with an open-back heating-chamber, and the open pipes sunken into the recesses of the tub and connected to the heating-chamber of the furnace.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

CHRISTIAN HEINRICH. [L. S.]

Witnesses:

W. HAUFF,  
CHAS. WAHLERS.