

(No Model.)

J. REILLY.

HEATING BATH TUBS BY STEAM.

No. 255,535.

Patented Mar. 28, 1882.

Fig. 1.

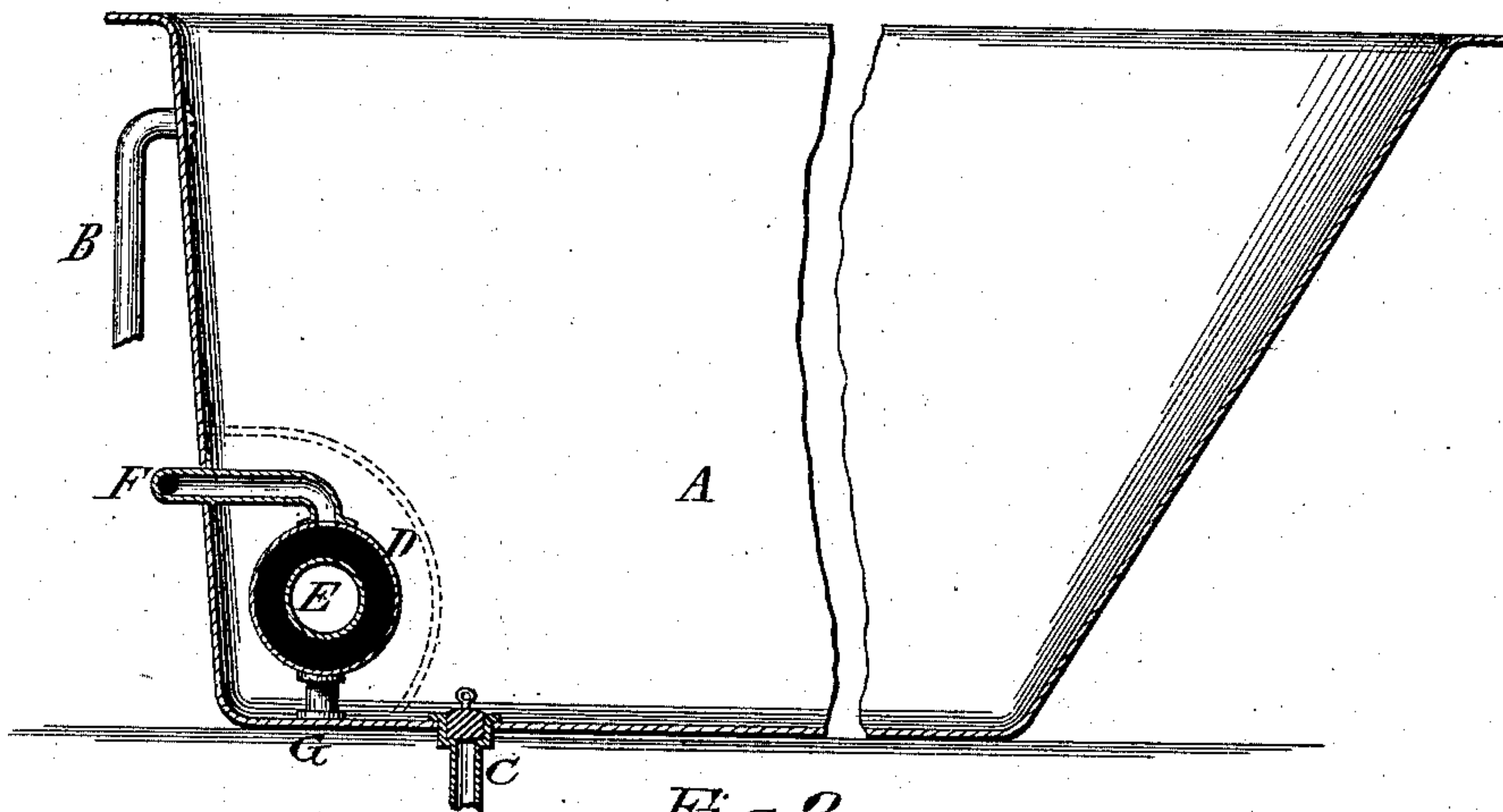


Fig. 2.

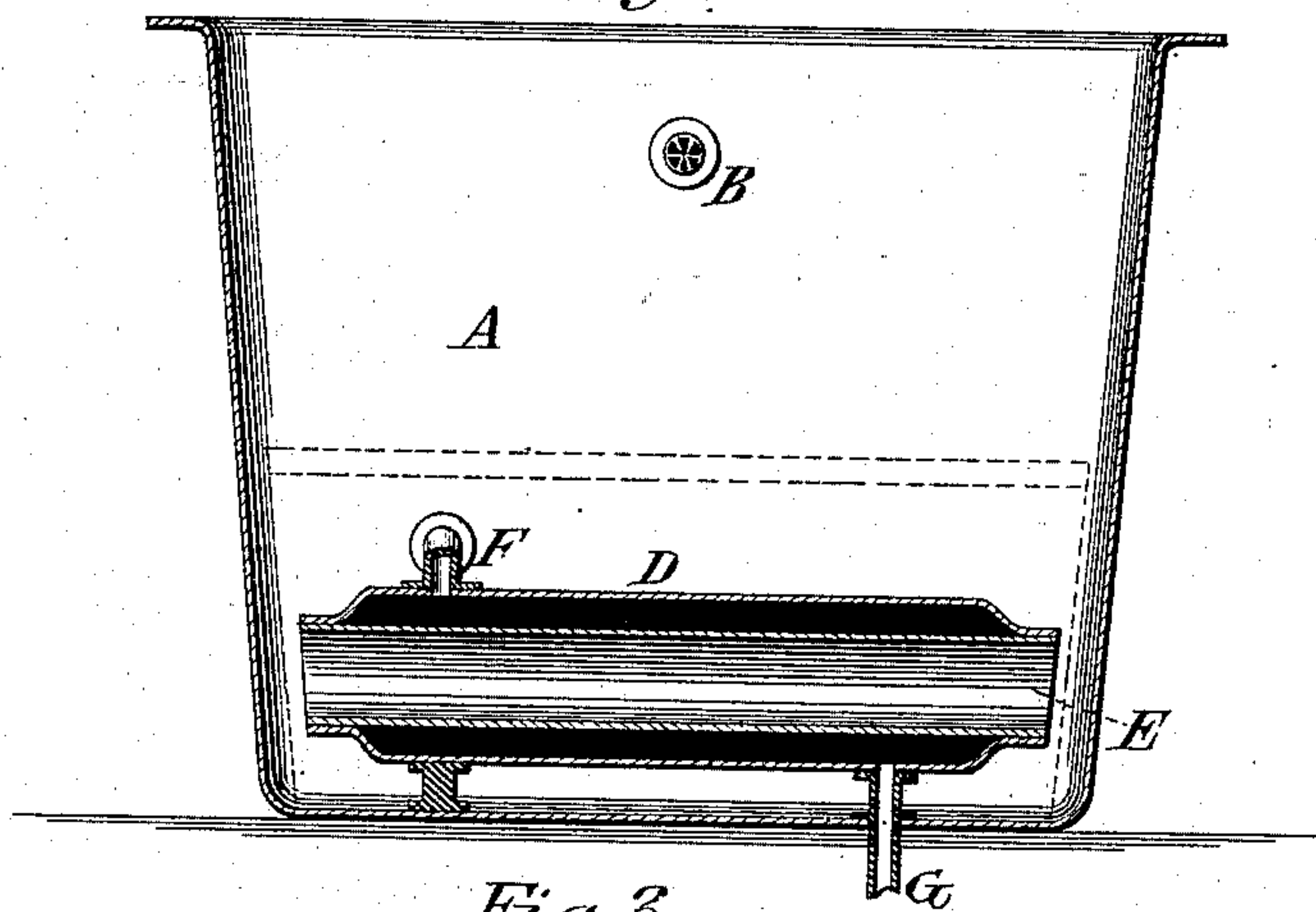
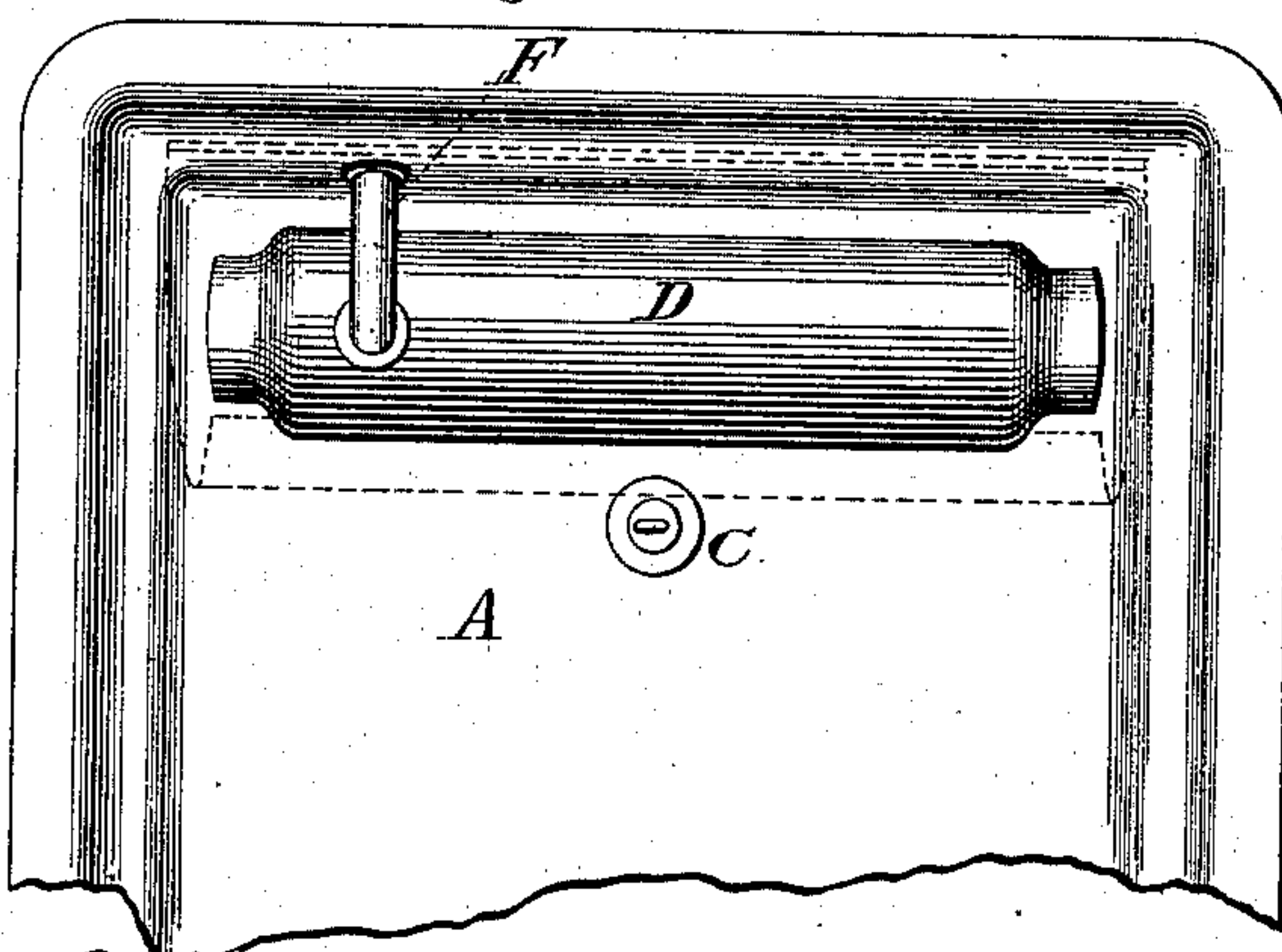


Fig. 3.



Witnesses:

Wm Bowman
Michael Barry

Inventor:

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UNITED STATES PATENT OFFICE.

JAMES REILLY, OF BROOKLYN, NEW YORK.

HEATING BATH-TUBS BY STEAM.

SPECIFICATION forming part of Letters Patent No. 255,535, dated March 28, 1882.

Application filed November 3, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES REILLY, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented a new and useful Device for the Heating of Bath-Tubs, of which the following is a specification.

My invention consists mainly in the introduction into bath-tubs of an arrangement of steam-heating pipes, by means of which, operating as a radiator before the introduction of the water into the tub, the air of the room may be properly warmed, after which, by the introduction of the water into the bath-tub, the heating-pipes are submerged and the bathing-water raised to any desired temperature.

To enable persons skilled in the art to which my invention pertains to make, construct, and use the same, I will proceed to describe its construction and operation by reference to the accompanying drawings, in which—

Figure 1 is a longitudinal sectional elevation; Fig. 2, a transverse sectional elevation; Fig. 3, a top view of one end of the bathing-tub, showing the pipe for the introduction of steam, the same letters indicating similar parts in the several views.

A is a bath-tub of usual construction; B, a pipe by which the bathing-water is introduced, and C a pipe by which it is discharged. D is a cylindrical steam-heater, made of metal, the ends of the tube forming the same being contracted in diameter, so as to unite with a tube or inner cylinder, E, which is set concentrically with the outer cylinder, and through which the water of the bath-tub freely circulates, while the steam for heating it is admitted to the annular space between the said tube and the outer cylinder. The steam is admitted into the heater by means of pipe F, and the resulting water of condensation is discharged by means of pipe G.

The operation of my invention is as follows: For the purpose of warming the bathing-room the steam is permitted to enter the heater, which causes by local rarefaction of the air its

rapid circulation throughout the apartment. When sufficient warmth has been secured the bathing-water is admitted into the tub until the heater is submerged, when the water is circulated in like manner by the expansion and ascent of that portion surrounding the heater until the whole has acquired the temperature desired.

My heating apparatus, instead of being placed directly within the bath-tub, may be placed in any suitable chamber or cell connected therewith by suitable pipes, (induction and education,) through which the upward current of the heated water within the connected chamber or cell will pass into the bathing-tub by the induction-pipe provided, and be replaced in the heating chamber or cell by the cooler water of the tub flowing in through the pipe provided for this purpose.

I am aware that the water in bath-tubs has been heated by introducing steam directly into the water through an open-mouthed pipe provided for this purpose; but the operation of this device discloses many objections, as the introduction into the bath-tub of grease and rust from the steam boiler, a certain disagreeable crackling and percussive noise caused by the sudden condensation of the injected steam and a considerable discharge of steam into the atmosphere of the room, as the water rises in temperature and is unable to condense the entering steam with sufficient rapidity to prevent its bubbling up to the surface and being there liberated. I therefore do not claim any such device.

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

The combination, with a bath-tub, of surface steam-heating pipes placed within the tub, arranged and operating substantially as herein set forth.

JAMES REILLY.

Witnesses:

WM. BURNETT,
MARK K. BOWMAN.