G. F. FOOTE.

Bath-Chamber.

No. 133,702. Patented Dec. 10, 1872.

Fig. 6.

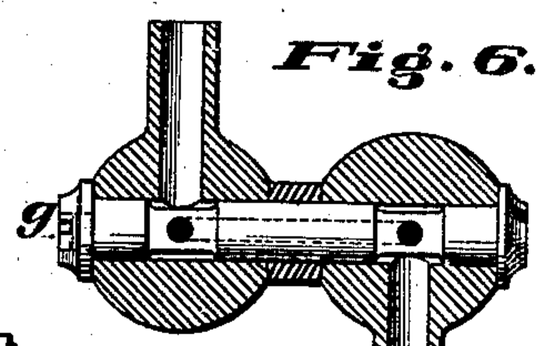


Fig. 1.

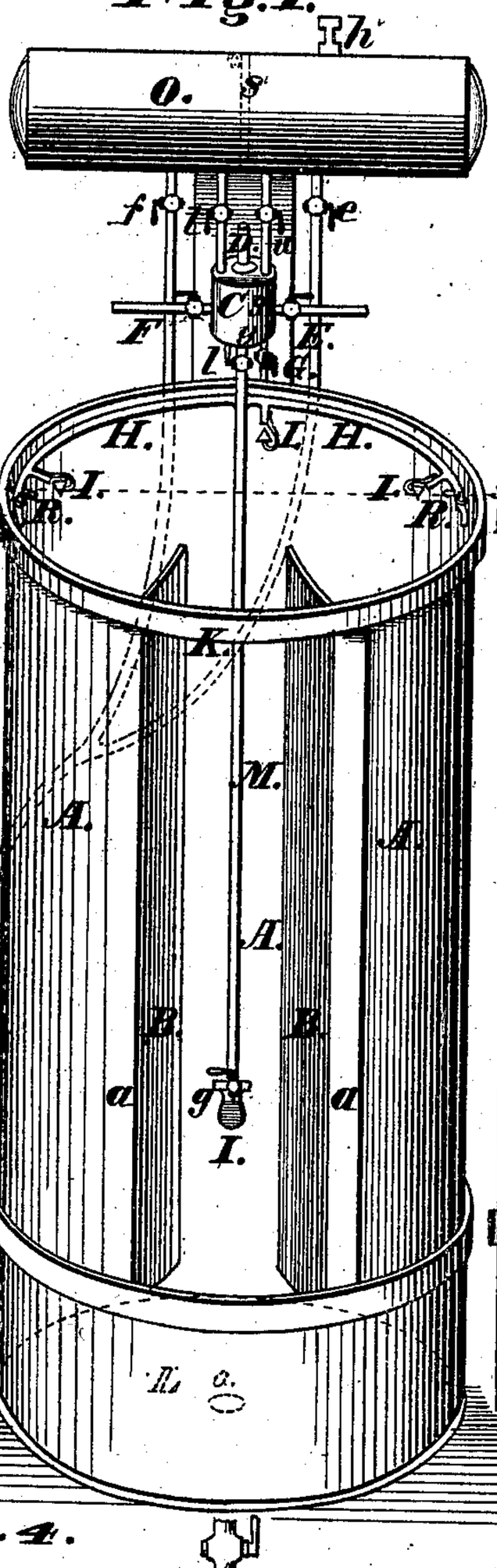


Fig. 3.

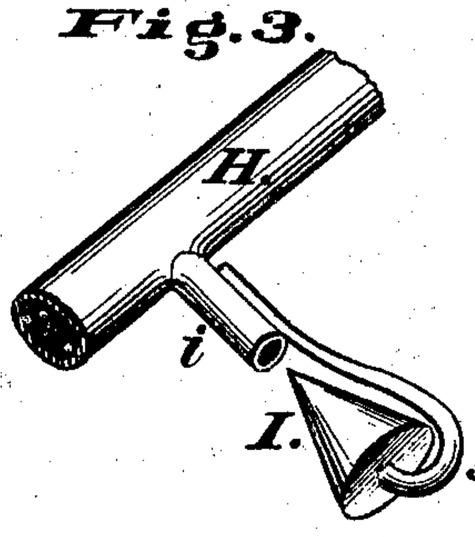


Fig. 5.

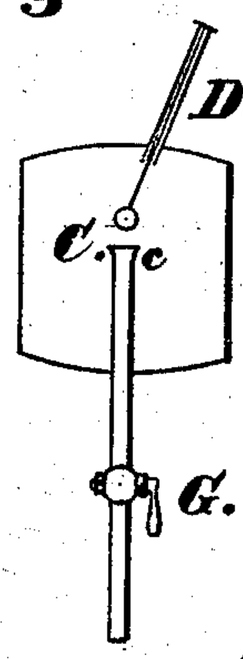
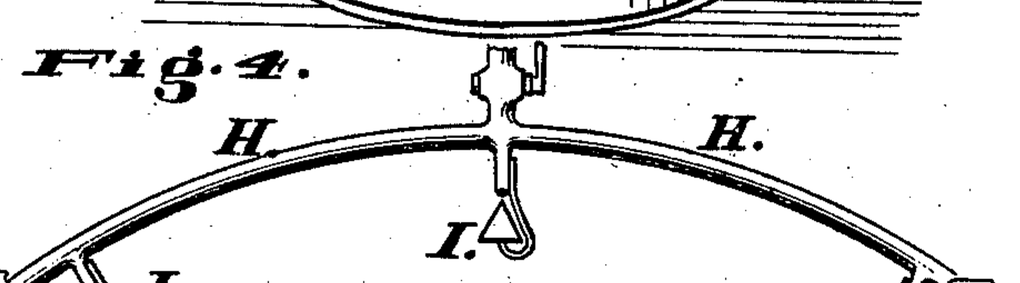


Fig. 2.

Fig. 4.



Witnesses.

George Nollmeyer.

Chas. E. Hibberd.

Inventor.

Geo. F. Foote.

UNITED STATES PATENT OFFICE.

GEORGE F. FOOTE, OF MIDDLETOWN, NEW YORK.

IMPROVEMENT IN BATH-CHAMBERS.

Specification forming part of Letters Patent No. **133,702**, dated December 10, 1872.

To all whom it may concern:

Be it known that I, GEORGE F. FOOTE, of Middletown, in the county of Orange and State of New York, have invented certain Improvements in Bath-Chambers, of which the following is a specification:

My invention relates to the construction of an inclosed upright bath-chamber, open at the top, within which is produced a flowing bath, not by a shower of drops, nor the flowing of numerous perpendicular or horizontal streams from perforated surfaces, nor from air mingled with water in producing a spray, but by water broken into minute particles with such momentum as to prevent their aggregation into large drops or streams before impinging upon the body being bathed. Also, to the construction of the same in connection with a reservoir for the commingling of the inflowing hot and cold water, governed by stop-cocks, and graduated by a thermometer so as to produce a fountain from which shall flow water at any desired temperature. The object is to produce a bath made available within a few moments of time, and with great economy in space and in the use of water, that shall give a genial and pleasant ablution at an agreeable temperature, and with facilities while in use for changing gradually to any desirable degree, noted by the thermometer, without shock or discomfort to the bather.

Figure I is a perspective of the chamber embodying my invention. Fig. II is a vertical transverse section of the same taken through *x x* as it appears in use with a person therein. Fig. III is a perspective view of the diffuser with a piece of the water-pipe H H to which it is attached. Fig. IV is a sectional view of the water-pipe H H with diffusers I I I and also the cocks R R at each end. Fig. V is a vertical section taken through lines *y y* of the equalizing-fountain C, showing the position of the thermometer D and the exit-pipe *c*. Fig. VI is the adjustable diffuser *g* I.

The walls of the chamber A A may be made of sheet metal, or of wood or other suitable material. A hoop of band-iron, K, may give form to the top, to which, with the water-pipe H H, it is fastened. The base L may be of the same material, constructed to hold water, with an escape for the waste water at *o*, which may be closed with a stopper for the purpose of converting the same into a tub or sitz bath. B B are doors opening inward, hinged to the jams *a a*, over which jams and the base, for about one inch, it laps to prevent leakage. C is the equalizing-fountain, into which flows and commingles hot and cold water, regulated by the cocks F and E so as to give the desired temperature, as indicated by the thermometer D.

It may be made of any desirable size—out of metal or wood.

It is important that the bulb of the thermometer be placed at or near the opening for the exit of the water, Fig. V, to show its exact temperature as it escapes.

H H is a water-pipe connected by cock G to the equalizing-fountain. Into this are inserted, by a screw-thread, the diffusers I I I, and each end of the pipe terminates with a cock, R. M is a water-pipe, connected by cock *l* to the equalizing-fountain C, while to the lower end is fastened, by an ordinary single or double swing-joint, *g*, a diffuser, I. This diffuser is adjustable for the purpose of directing the water upon any part of the body. O is an air-tight reservoir, and may be made in cylinder form, out of galvanized iron or other suitable material, with a wooden partition, *s*, perforated at its upper edge. Connected with this reservoir, by means of the pipe *b*, (dotted line,) is the force-pump P. The pipe *b* divides, and enters the reservoir by cocks F and E. The reservoir is also connected with the equalizing-fountain by cocks *t* and *u*. V is an ordinary bucket or tub. *h*, on the top of the reservoir O, is a safety-valve to allow the escape of air should the pressure be too great.

The operation is as follows, viz: Before entering the bath the cock G is opened so as to allow the water to flow gently, while those at F and E are adjusted to give the proper proportions of hot and cold water to produce the desired temperature, as indicated by the thermometer. The person bathing then enters the bath-chamber, opening freely the cock G, and the water flows from the tubes *i i i*, impinging with force upon the cone, which diffuses it into fine particles, directing it upon the body below the head.

For its hygienic effects, before leaving the bath the hot-water cock may be nearly closed, and the temperature of the water gradually

and almost imperceptibly changes to that which is cooler. The adjustable diffuser *g* I may be used in combination with or without the other diffusers, and will be found to be very pleasant for bathing the feet, as well as for bathing children, if used alone.

The cocks R R at the ends of the water-pipe, (Figs. I and IV) are used, when desired, for filling the tub below, and more particularly for removing any fôreign matter that might impede the free exit of the water through the diffusers.

Should the hydrostatic pressure from the supply-pipes at any time be insufficient to produce the necessary diffusion of water, or should the supply of water fail, as is often the case in upper stories of dwellings during certain portions of the day when large demands for water are made, aerostatic pressure may be substituted by pumping a bucket of cold water into one end of the reservoir O and a bucket of warm water into the other. This compresses the air and accumulates a force within the reservoir sufficient to give the necessary impetus for diffusing the water, and the operation of bathing is the same as before, using the cocks *t* and *u* for regulating the temperature.

I make no claims to a close bath-chamber with streams of water flowing from perforated surfaces, known as shower or needle baths, nor to a spray produced by mingling water with currents of air, nor to the commingling from different reservoirs water of different temperatures into one delivery-pipe, as I am aware that these are not new; but

I claim as my invention—

1. An upright bath-chamber, open at the top, constructed in the manner and for the purposes herein described.

2. The construction of the doors to a bath-chamber opening inward and overlapping the jointswhen shut, at the bottom and at the sides, so as to prevent the leakage of water when in use, substantially as shown.

3. The diffusers I, substantially as herein described, in combination with the vertical bath-chamber, as and for the purposes herein mentioned.

4. The equalizing-fountain C, in combination with the bath-chamber, substantially as herein described, and for the purposes herein set forth.

5. In combination with the water-pipe H H and diffusers I I I, the cocks R R, as herein described, and for the purpose set forth.

6. The reservoir O, constructed as described, in connection with the force-pump P, and in combination with a vertical bath-chamber.

GEO. F. FOOTE.

Witnesses:

GEORGE NOLLMAN,

CHAS. E. HEBBERD.