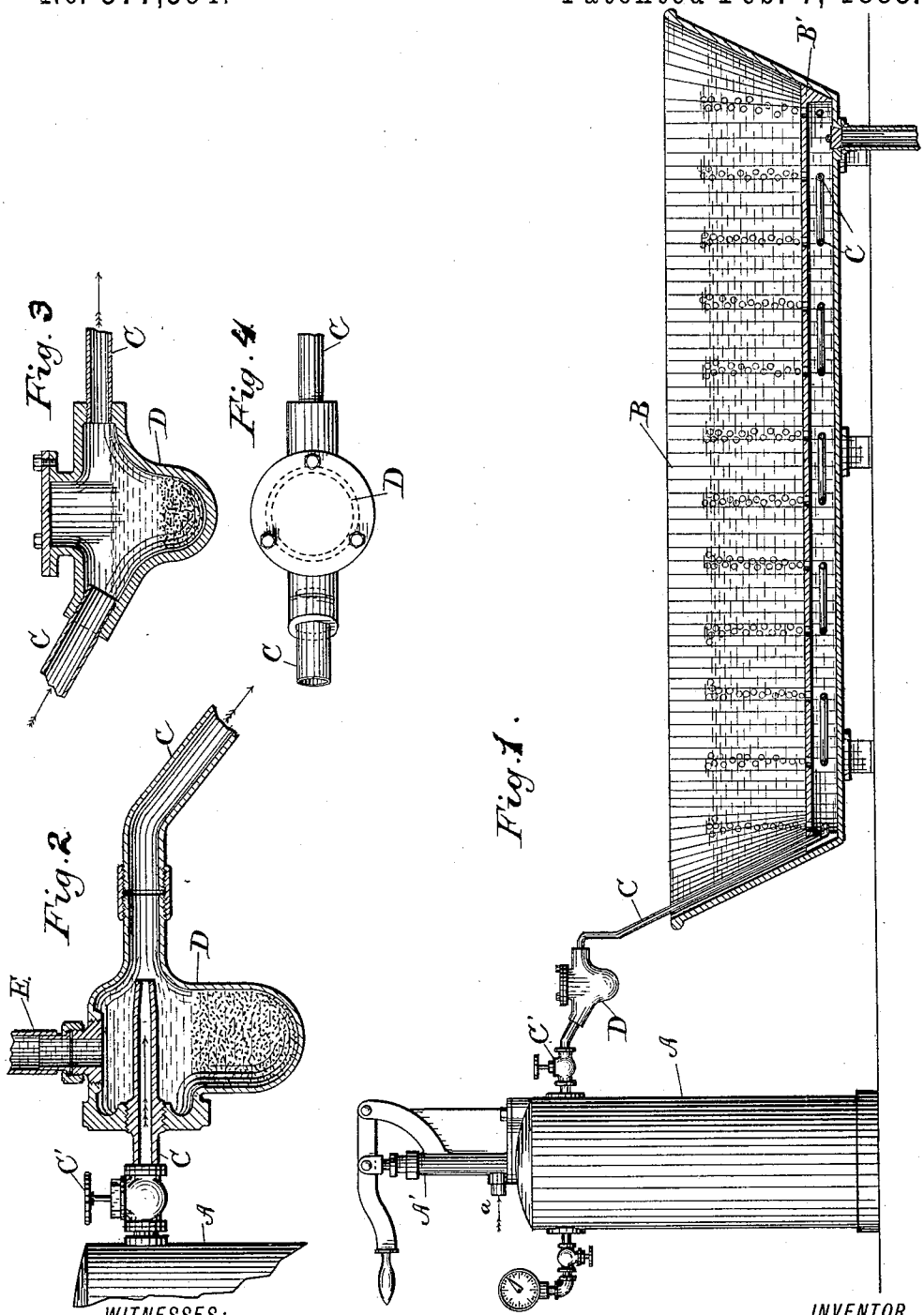
(No Model.)

F. C. F. KNAAK.

APPARATUS FOR BATHING PURPOSES.

No. 377,394. Patented Feb. 7, 1888.



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APPARATUS FOR BATHING PURPOSES.

SPECIFICATION forming part of Letters Patent No. 377,394, dated February 7, 1888.

Application filed August 30, 1887. Serial No. 248,279. (No model.)

To all whom it may concern:

Be it known that I, FRANK C. F. KNAAK, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Apparatus for Bathing Purposes, of which the following is a specification.

My invention is an improvement in apparatus for bathing purposes; and it consists in the construction, arrangement, and combination of parts hereinafter described and claimed.

The object of my invention is to produce a cheap, compact, durable, and portable or stationary apparatus by which the benefits of a chemical, mineral, or other form of medicinal bath may be secured. In my apparatus compressed air, carbonic-acid gas, any of the mineral waters used for this purpose, or chemicals—such as chlorine or nitro-muriatic acid, sulphur, &c.—may be employed.

In the following description reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference denote like parts throughout the several views.

Figure 1 is a partial elevation and partial vertical section of my bathing apparatus. Figs. 2 and 3 are sectional views of different forms of an attachment I employ, and Fig. 4 a top plan thereof.

A is a compressed-air vessel of any suitable form, and A′ an air-pump for filling the same with air, which enters at *a;* or said tank may be filled with carbonic-acid gas under pressure, if desired, or any of the substances herein named or others that are used for similar purposes.

B is a bath-tub of usual form, provided with a perforated removable bottom, as shown. Beneath this removable bottom is placed a perforated coil of tubing, C, which communicates with the air tank or vessel by means of a pipe, *c*, provided with a stop-cock, *c′*.

The operation of this device is as follows: The tub being filled with water, the air-tank with compressed air, carbonic-acid gas, or other substance, and the cock *c′* being opened, the air or gas under pressure will pass down through tube *c* into the perforated coil C, out through said perforations, and up through the perforations in the bottom B′, as shown, producing an effervescence, ebullition, or bubbling of the water in the tub, causing a sensation to the bather both delightful and refreshing.

I have shown an attachment to my bathing apparatus by which the benefits of salt or carbonic acid or other suitable substances are provided, and it is to this feature that my invention particularly relates. Attached to the tube *c*, as shown, is a vessel, D, of the shape shown in Fig. 4, having an enlarged lower chamber and two passages communicating therewith, with which separate portions of pipe C connect, and also a passage by means of which a water-pipe, E, communicates therewith. In the bottom of this vessel may be placed either salt, carbonic acid, or other desired substance in a finely-powdered condition, and the tank A being filled with compressed air, the cock *c′* being opened, the air under pressure will be blown into and through the substance in the vessel D, as shown in Fig. 7, and said substance will be carried down through the perforations in said pipe and up through the perforations in the bottom B′, producing results similar to those hereinbefore described.

In Fig. 6 the pipe E, for admitting water to the tub, is attached to vessel D, as shown, and to pipe E a hose may be secured. The tube *c*, or a portion thereof, extends into and across the vessel D and into the outlet on the other side, with which the other portion of tube *c*, which communicates with the bath-tub, connects, forming a blow-pipe. The water enters through pipe E and mingles with the salt or other substance, and passes down through the pipe or tube *c*, together with the compressed air, and up through the perforations in coil C and the perforated bottom B′, as in the first instance. In this case the tub or tank may be partly filled with water before admitting the water through pipe E and vessel D, if desired.

It is evident that this apparatus may be either portable or stationary, and that it may be constructed either on as large or as small a scale as may be desired; also, that other machinery or mechanism on a larger scale may be employed for furnishing air under pressure.

Having fully described my invention, its construction and operation, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a bathing-tank provided with a perforated coil in the bottom thereof and a removable bottom over said coil, of an air-tank, a vessel having an enlarged lower portion and openings in its opposite sides, a pipe attached to the air-tank and communicating with one of the side openings in said vessel, extending part way across and forming an injector-nozzle therein, and a pipe attached to the opposite side opening and communicating with the coil in the bathing-tank.

2. The combination, with a bathing-tank provided with a perforated coil in the bottom thereof, of an air-tank, a vessel having an enlarged lower portion and openings in its opposite sides and top, a water-pipe communicating with the openings in the top of said vessel, a pipe attached to the air-tank and communicating with one of the side openings in said vessel and forming an injector-nozzle therein, and a pipe attached to the opposite side opening and communicating with the coil in the bathing-tank, substantially as shown and described.

Signed at New York, in the county of New York and State of New York, this 25th day of August, A. D. 1887.

FRANK C. F. KNAAK.

Witnesses:
W. W. CANFIELD,
L. L. DUERDEN.