GIBSON & EMERSON.

Water Cooler.

No. 46,556. Patented Feb. 28, 1865.

Fig. 2

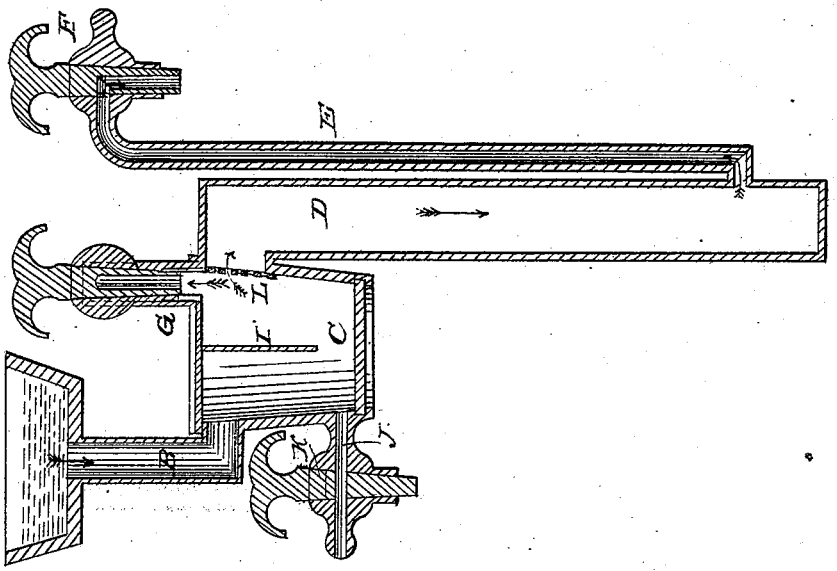
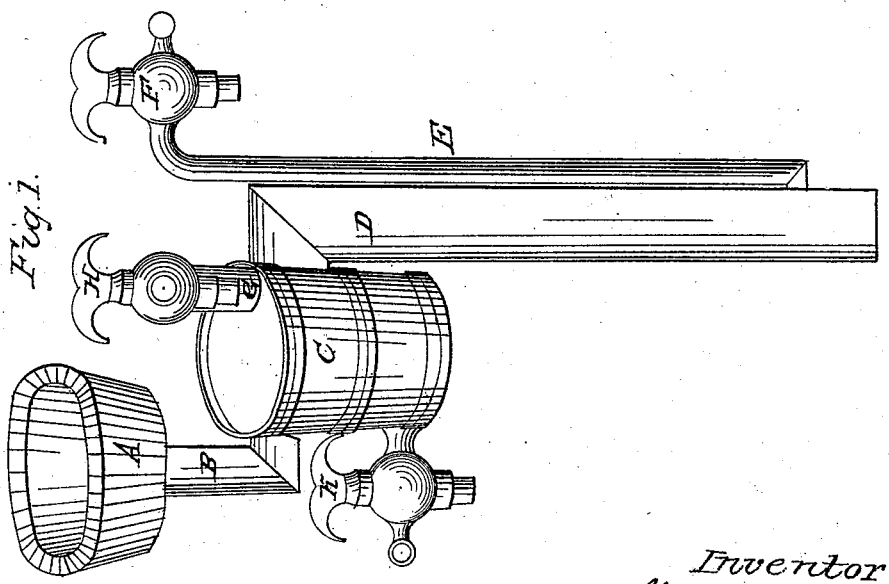



Fig. 1.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN WATER COOLERS AND PURIFIERS.

Specification forming part of Letters Patent No. **46,556**, dated February 28, 1865.

*To all whom it may concern:*

Be it known that we, ABRAM J. GIBSON, of Cincinnati, Hamilton county, and State of Ohio, and GEORGE EMERSON, of Newport, Campbell county, State of Kentucky, have invented a new and useful Improvement in Water-Purifiers and Subterranean Coolers; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation representing a reservoir, purifier, and a subterranean water-cooler. Fig. 2 is a transverse section of the same.

Similar letters of reference indicate corresponding parts in the figures.

This invention relates to a new and improved mode of purifying and cooling water by conveying it in pipes from a reservoir to a purifier, thence to a subterranean cooler, and from the purifier or cooler in pipes to a desirable place for use.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents a reservoir as used in cities, towns, and villages where water-works are in operation, to convey water through pipes for use. B is a pipe in connection with a reservoir placed in the ground to convey water from reservoir A to purifier C. Purifier C may be placed in a cellar, sub-cellar, basement of a building, or on the surface of the earth, at any desirable place for use, below the reservoir A. The purifier C may be made of wood or any suitable material capable of containing about three barrels of water. It should be made of more depth than breadth, with a partition, I, dividing it in two parts, a cross in the center from the top extending down about three-fourths the length of the purifier to break the current of water across the top of purifier and compel it to pass down under the bottom edge of partition. Purifier C is for the purpose of receiving water from pipe B and allowing the sediment to settle to the bottom of purifier. At the top of purifier opposite pipe B is inserted a pipe, D, about two inches in diameter, and extending down into the earth by the process of boring of sufficient length below the surface of the earth to cool the water. Near the bottom of pipe D is connected a pipe, E, about one-half inch in diameter and extending upward by the side of pipe D to the surface of the earth at any place desirable for use below the water in the reservoir A. A small quantity of water drawn from pipe E by means of faucet F will clear the pipe E of warm water from the upper part of pipe E, and be replaced with cold water from the bottom of cooler-pipe D.

At the top of purifier C is a pipe, G, inserted to draw water for purposes where common warm hydrant water will serve by means of faucet H.

We do not wish to confine ourselves to the exact dimensions of the several pipes or the purifier, or the material used in the pipes, as lead, iron, or any suitable material may be used.

The advantage in this improvement is that placing small pipes and exposing a large amount of surface deep in the earth will keep the water cold and more desirable to drink than ice-water, and the purifier being placed between the reservoir and cooler retains all the sediment which settles to the bottom of purifier and is not disturbed by the current of water in its passage out through strainer L, Fig. 2, as the water is drawn from the top of the purifier C.

Another very important point is obtained by placing a stop-cock at the bottom of purifier allows at any time to draw off and clean the sediment from the purifier.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

A purifier, C, cooler-pipes D and E, and pipes B and G, with faucets F, H, and K, the arrangement and construction in combination, as and for the purpose herein set forth.

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Witnesses:
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