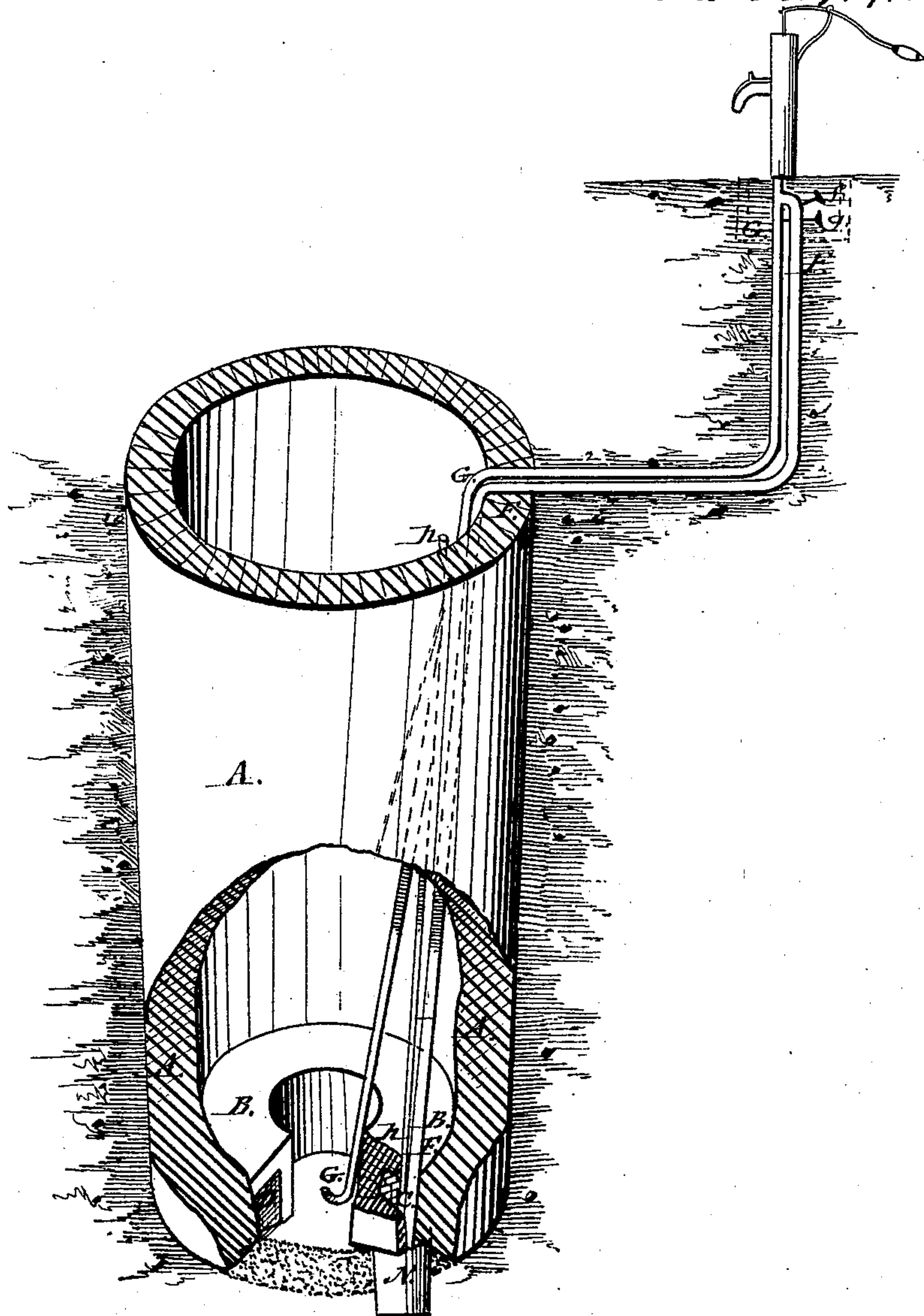


J. J. Walker,

Cistern.

No. 29716.

Patented May. 4. 1869.



Witnesses:
H. F. Everts
L. C. Hyde

Inventor:
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United States Patent Office.

JOHN J. WALKER, OF ANN ARBOR, MICHIGAN.

Letters Patent No. 89,716, dated May 4, 1869.

IMPROVEMENT IN CISTERNS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, JOHN J. WALKER, of Ann Arbor, in the county of Washtenaw, and State of Michigan, have invented a new and useful Improvement in Cisterns and Filters combined; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

The nature of this invention relates to the construction of a filter in the bottom of an ordinary cistern, and so arranged that the water of the cistern can be compelled to pass through said filter, to a reservoir below the bottom of the cistern.

It consists, also, of such an arrangement of stop-cocks and pipes that water may be drawn at pleasure from the cistern itself, or from the reservoir.

A, in the drawing, represents a cistern of ordinary construction.

B is a water-tight channel, which may be filled with any suitable filtering-material, and which may be built of brick and mortar, or any other proper material.

D is a suitable screen, covering the open end of the channel, or filter-box, through which water in the cistern has free access to the interior of said box.

This screen will effectually prevent coarse foreign substances from entering the channel.

C is the opposite end of the channel, or filter-box, which is tightly closed against the water in the cistern, but is provided with a proper opening, to allow the filtered water to pass freely into the reservoir N. This end of the channel, or filter-box is represented as broken off in the drawings.

N is a reservoir, having free communication with the channel, or filter-box, and is situated below the bottom of the cistern, so that the water will readily flow through the channel, or filter-box into it, and keep it full of filtered water; and for the further pur-

pose, when the cistern is sunk in the ground, of keeping the water in the reservoir cool.

G is a pipe, leading from the cistern to a suitable pump, and is provided with a stop-cock, *g*, a short distance below the pump.

F is a similar pipe, leading from the reservoir N, and connects with the pipe G a short distance from the pump, and is provided with a stop-cock, *f*.

These stop-cocks are so arranged relatively to the pump, that when the cock *f* is closed, and the cock *g* is open, water may be drawn directly from the cistern. When the position of the cocks is reversed, water may be drawn directly from the reservoir, the pipe leading to the cistern being closed.

An air-pipe, *h*, extending from the interior of the reservoir to the top, or near the top of the cistern, admits air to the reservoir, to keep the water sweet.

The channel, or filter-box may be built around the interior wall of the cistern, as shown in the drawings, or it may be arranged in any other convenient form or position, so long as the reservoir is situated below it, that the water will freely pass through the one into the other, by its own gravity.

By means of a cistern and filter thus constructed and arranged, pure water may be had at all times, in sufficient quantities for drinking or culinary purposes, and unfiltered water may be drawn for washing-purposes as desired.

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

The cistern A, filter-chamber B, reservoir N, pipes F, G, and *h*, when arranged as described and used, in connection with each other, for the purpose set forth.

JOHN J. WALKER.

Witnesses:

LOUIS O. HYDE,
GEORGE RUHLANDT.