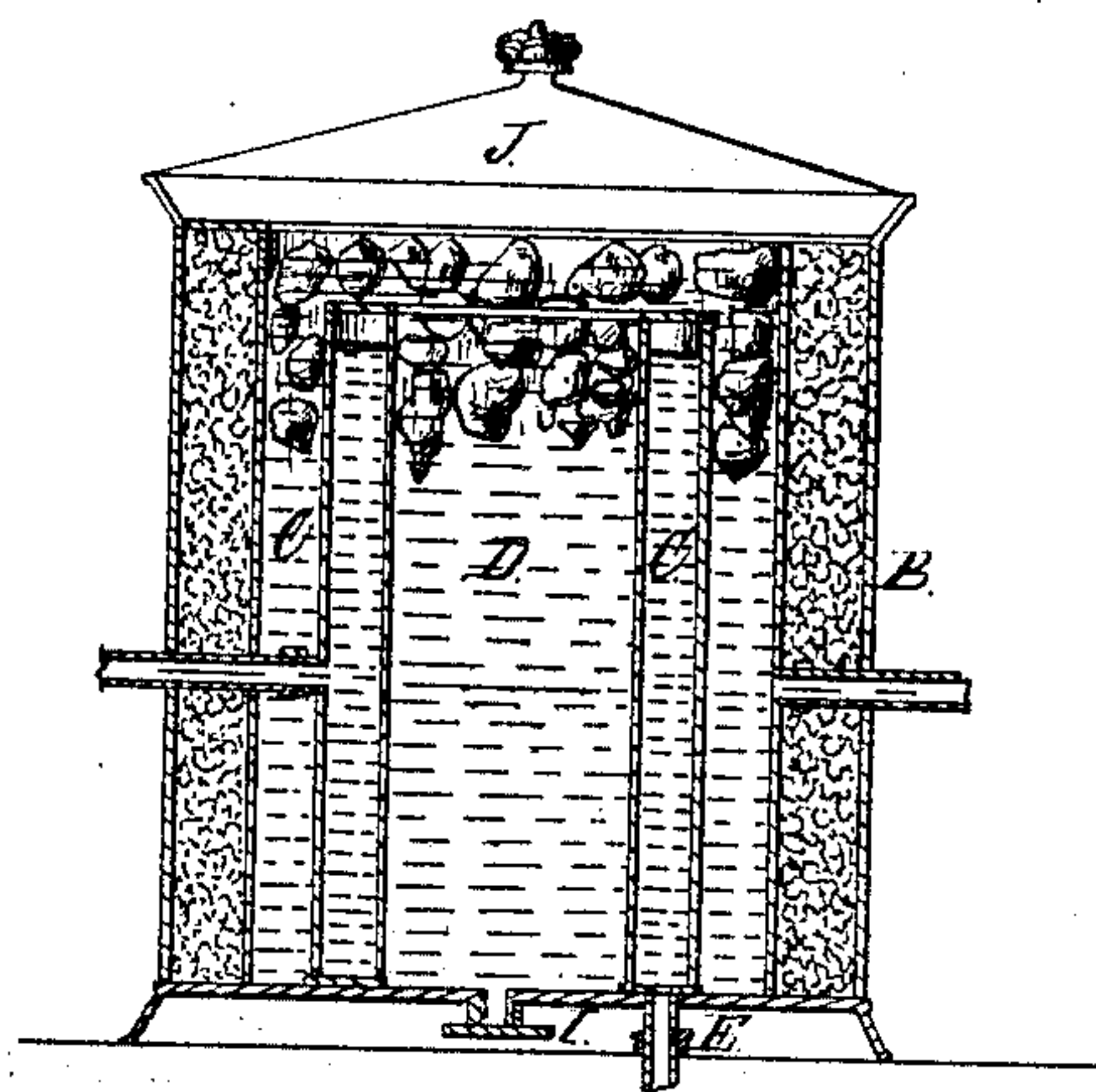
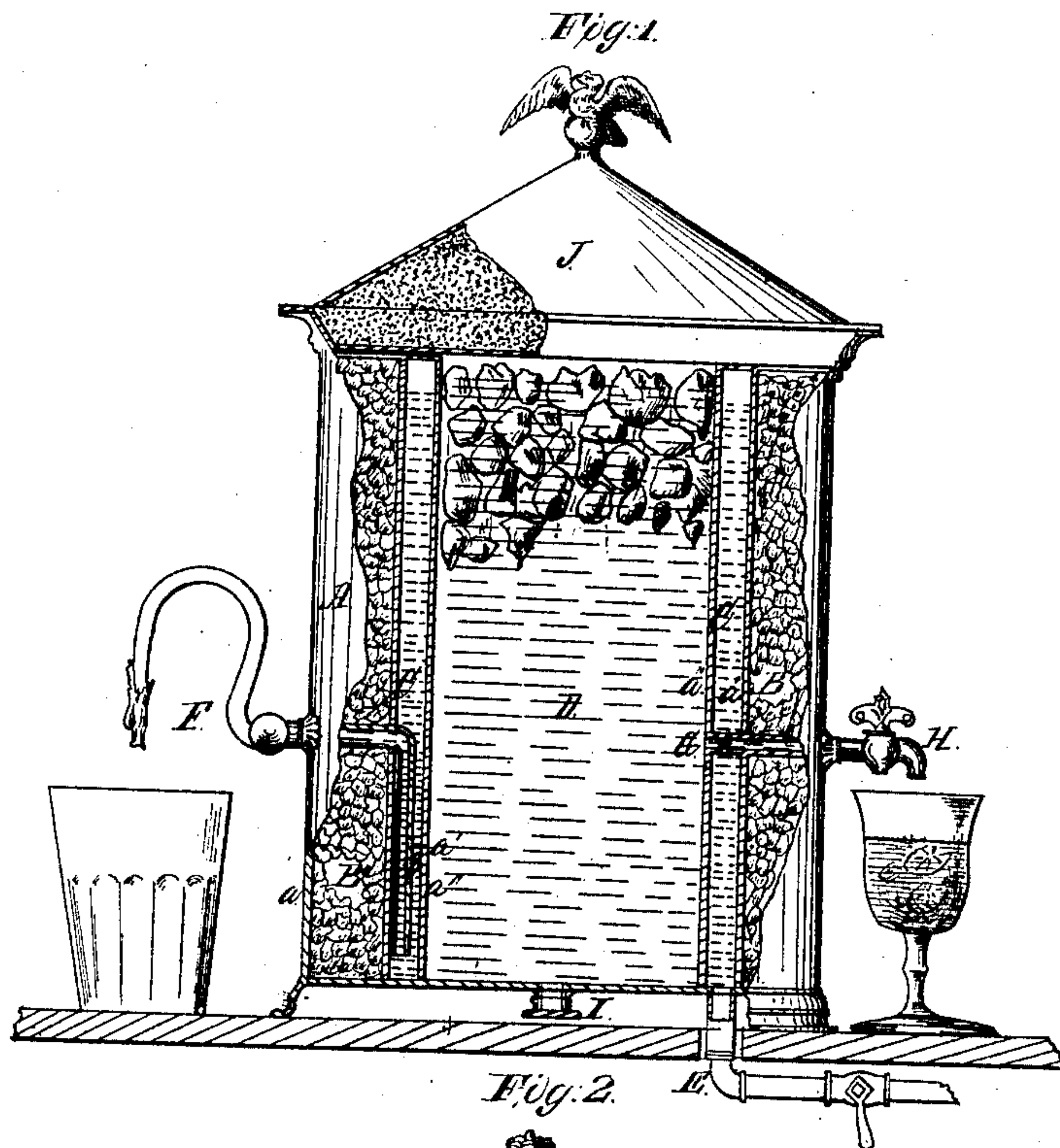


E. D. Finch,

Soda-Water Apparatus,

N^o 65,366.

Patented June 4, 1867.



Witnesses:
C. G. Webb.
Samuel Knight

Inventor:
E. D. Finch
By August B. May

United States Patent Office.

EDWIN D. FINCH, OF STANTON, MICHIGAN.

Letters Patent No. 65,366, dated June 4, 1867.

IMPROVEMENT IN SODA-FOUNTAINS.

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

TO WHOM IT MAY CONCERN:

Be it known that I, EDWIN D. FINCH, of Stanton, Montcalm county, Michigan, have invented a new and useful Refrigerator for Soda-Fountains; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

This invention relates to a device for the more convenient and efficient application of ice to a fountain of soda-water, for the purpose of drawing it at a very low temperature. It is also so arranged that the cold water resulting from the melting of the ice is available for drinking, mixing sherbets, lemonades, &c.

Figure 1 is a vertical section of a soda-fountain embodying my invention.

Figure 2 is a similar section showing a modification of the same.

A is the body of the refrigerator, consisting of two concentric cylinders $a a'$, of tinned iron or other suitable material, the space B between which is filled with fine charcoal, gypsum, or other non-conductor. A third smaller concentric cylinder, a'' , is fastened at top and bottom to the inner one a' , the interval C thus obtained serving to contain the soda-water, while the centre portion D serves as an ice-chamber. A pipe, E, from the fountain proper, enters the lower end of the chamber C, keeping it supplied with soda-water while it is drawn by a customary cock, F, at one side. A pipe, G, passing through the outer chambers to the central one, and supplied with a cock or faucet, H, allows ice-water to be drawn. I is a nozzle in the bottom, fitted with a screw-cap, for the purpose of emptying the central chamber when necessary for cleansing, &c. A tightly-fitting cover or lid, J, of a conical form, and hollow, is filled with fine charcoal or other non-conducting substance, like the body of the vessel. In fig. 2 a modification is shown, in which the chamber for soda-water C is constructed of two concentric cylinders, and closed by an annular plate at top and bottom, of such diameter as to leave a space for ice and water between its outer periphery and the inner surface of the non-conducting chamber. It is lowered into the latter, connected with its proper pipe and faucet, and the outer and inner space filled with ice, thus exposing it to the cooling material on both sides.

The advantage of this arrangement over the customary "coil" of pipe passing through the ice-chamber, consists in the larger quantity of soda-water cooled at once, the cylinder containing a far greater quantity than the coil, and allowing the beverage to be constantly drawn with rapidity, without exhausting the stock of cooled liquid, and in the more efficient action of the ice, experiment having shown that my cooler requires only about one-third of the amount of ice required to produce equal results in cooling on the old system, besides availing the cold water of the melted ice for the purposes of a beverage.

I claim as new, and of my invention—

The arrangement of annular refrigerating and non-conducting chambers B C, enclosing a central ice-chamber, D, and provided with faucets F and H, for the purposes explained.

In testimony of which invention I hereunto set my hand.

E. D. FINCH.

Witnesses:

GEO. H. KNIGHT,
SAMUEL KNIGHT.