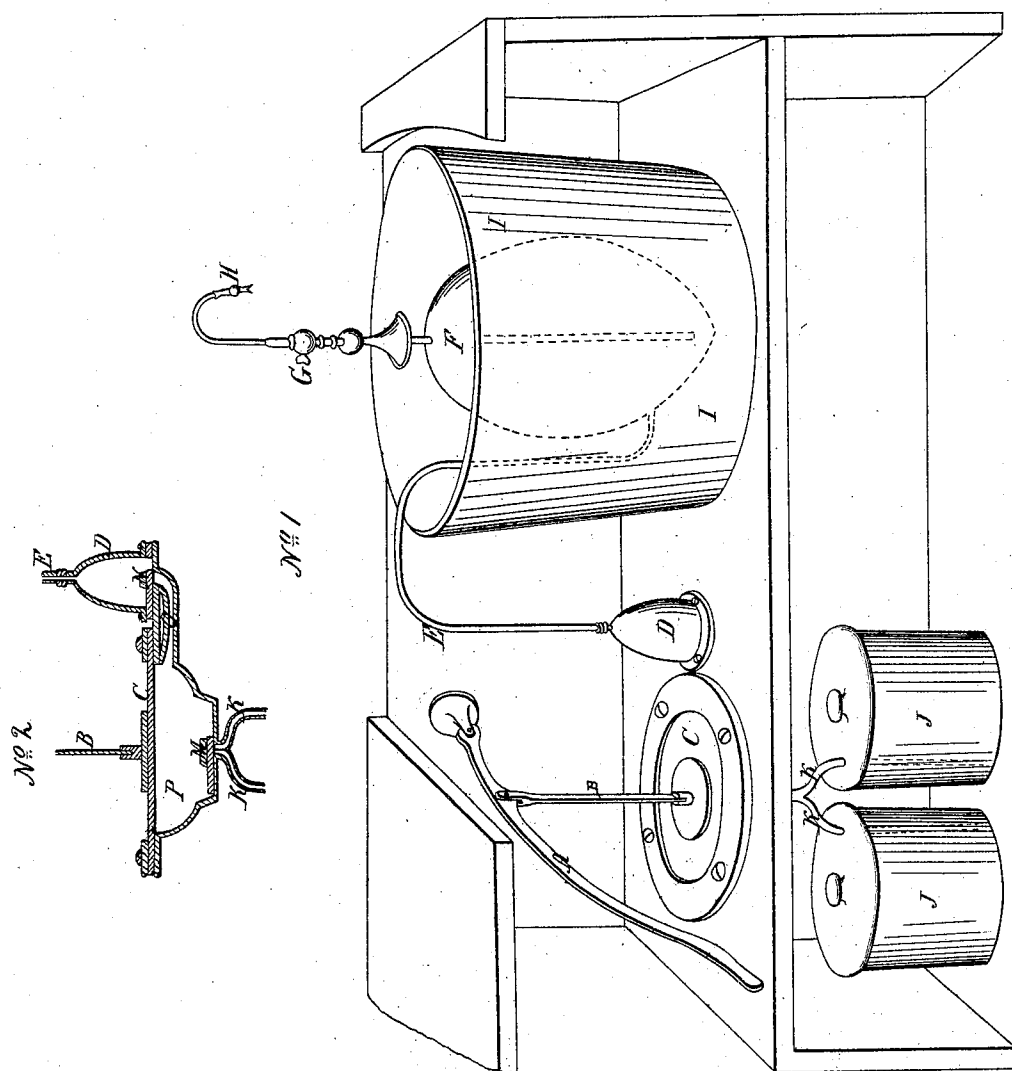


*Van Allen & Avery,
Soda Water Apparatus.*

N^o 19,960.

Patented Apr. 13, 1858.



Witnesses
Geo. A. Stansbury of
S. W. Bayley

Inventor
C. D. Van Allen
Samuel Avery & Co.

UNITED STATES PATENT OFFICE.

S. AVERY AND C. D. VAN ALLEN, OF BALDWINVILLE, NEW YORK.

SODA-FOUNTAIN.

Specification of Letters Patent No. 19,960, dated April 13, 1858.

To all whom it may concern:

Be it known that we, SAMUEL AVERY and CICERO D. VAN ALLEN, both of Baldwinsville, Onondaga county, State of New York, have invented a new and useful Soda-Fountain or Gas-Generator; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to letters of reference marked thereon.

To enable others to make and use our invention we will proceed to describe the construction and operation of the same.

We have two reservoirs J, J, two pipes K, K, leading from the reservoirs J, J, to the pump P having elastic cover C. The pump P, has a valve M which covers and closes the orifices of both the pipes K, K. The pump P has also a pipe O, leading to the valve cap D, in which the valve N, opens and shuts and from which the pipe E leads to the fountain or generator F, which is placed in a tub I, I, and surrounded with ice. The fountain or generator has a pipe H and L, leading nearly to the bottom and is provided with a stop cock G.

In order to make soda water, we put a solution of supercarbonate of soda in one of the reservoirs J, and tartaric acid in solution in the other. We then cause the piston B of the pump to rise, which draws both of the solutions into the pump chamber P on depressing the piston rod B. The solutions are prevented by the valve M from returning

to the reservoirs J, J, and are forced through the pipe O and E into the fountain or generator F, and prevented from returning to the pump by the valve N. The combination of the two solutions produces carbonic acid gas. The elasticity of the air confined in the fountain or generator together with the gas which is generated causes the fluids to rise through the pipe H, L, from which they are suffered to escape by opening the stop cock C. For four gallons of soda water we use four ounces of tartaric acid dissolved in two gallons of water and six ounces of supercarbonate of soda dissolved in two gallons of water; but any other materials in solution the combination of which will produce the gas required may be used.

What we claim and desire to secure by Letters Patent is the apparatus as described—that is to say—

The combination of the reservoirs J, J, to contain the one an acid the other an alkali in separated solutions, pipes K, K, valve M, pump chamber P elastic cover C, aperture O valve N valve cap D pipe E and generator F when these several parts are constructed and relatively arranged with respect to each other as set forth for the purpose specified.

SAMUEL AVERY.
C. D. VAN ALLEN.

Executed in presence of—
I. M. BAYLEY,
GEO. A. STANSBURY.