

H. PIETSCH.

Carbonic-Acid Gas Generators.

No 157,349.

Patented Dec. 1, 1874.

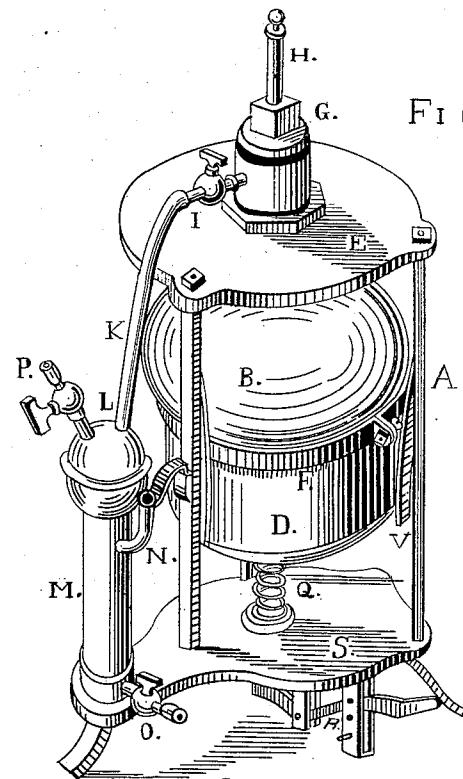


FIG I.

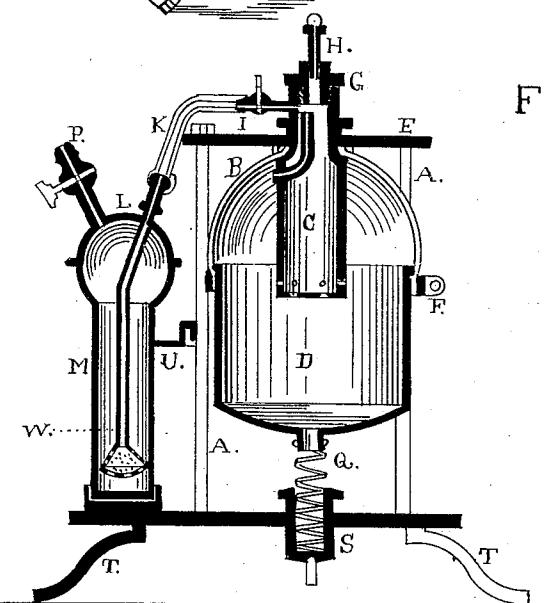


FIG II.

WITNESSES:

*A. Schattenberg*  
*D. Oliver*

INVENTOR:

*Hermann Pietsch*

# UNITED STATES PATENT OFFICE.

HERMANN PIETSCH, OF MILWAUKEE, WISCONSIN.

## IMPROVEMENT IN CARBONIC-ACID-GAS GENERATORS.

Specification forming part of Letters Patent No. 157,349, dated December 1, 1874; application filed May 23, 1874.

*To all whom it may concern:*

Be it known that I, HERMANN PIETSCH, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Carbonic-Acid-Gas Generators, of which the following is a specification:

My invention is for the purpose of generating carbonic-acid gas; and it consists in a generator hung on a frame, with a spring under it, and a lever working under the spring, with which to regulate the pressure of the gas. The upper part of the generator is made of rubber or other flexible material, so that its flexibility will allow it to expand and contract.

Figure 1 is a perspective view of my invention, and Fig. 2 a vertical sectional view of same.

A is the frame; B, the upper part of the generator, made of rubber or other flexible material; C, the basket, made of glass and secured to the metal plate E; D, a glass or stone bottom to the generator; E, a stationary metal plate secured to the frame A; F, a band round the generator to hold the rubber part and the glass part together; G, the nut and screw which screws into an opening in the plate E leading to the generator; H, a safety-valve on the top of nut G; I, a cock from the neck on the top of plate E, through which the gas leaves the generator; K, a pipe leading from cock I to cock L on the top of the washer, through which the gas passes; M, a washer filled with water to wash the gas; N, a pipe through which to fill water to the washer; O, cock to let the water out of the washer; P, cock in the top of the washer to convey the gas wherever wanted to be used; Q, spring under the generator, to lift it up and compress the gas; R, lever working under the spring to increase its pressure, the spring resting on the end of the lever; S, bottom of the frame, and on which stands the washer; T,

legs under the bottom of the frame; V, guides which steady the generator; W, a tunnel-shaped end of the pipe, which descends to the bottom of washer M, with perforations in it, through which the gas passes into the water.

This generator is operated as follows: The spring is regulated so that the generator shall be elevated high enough to have the acid which has been filled into the generator come high enough to wet the marble chips that have been filled into the glass basket C, and gas will be generated. As it is generated it will press on the generator, and stretch the rubber top of the same, and press the spring down, and thus settle the acid below the basket, and the gas will then flow through pipe K to the washer, and out into the water therein through the tunnel-shaped pipe, and rise and pass through pipe P to wherever wanted for use. When the gas is let out of the generator the spring will raise it again, and the gas will be again generated. If more pressure is wanted, then bear down on the outer end of the lever R and it will be obtained. When there is more pressure on the generator than is wanted the safety-valve will be pressed open and the generator relieved.

I claim as my invention—

1. The combination of generator B and D, basket C, spring Q, and lever R, to regulate the tension of spring Q, substantially as specified.

2. Generator B and D, basket C, frame A, and plate E, in combination with spring Q and lever R, substantially as specified.

3. Spring Q and lever R, to regulate the tension of spring Q, in combination with generator B and D, substantially as specified.

HERMANN PIETSCH.

Witnesses:

J. B. SMITH,  
E. J. SMITH.