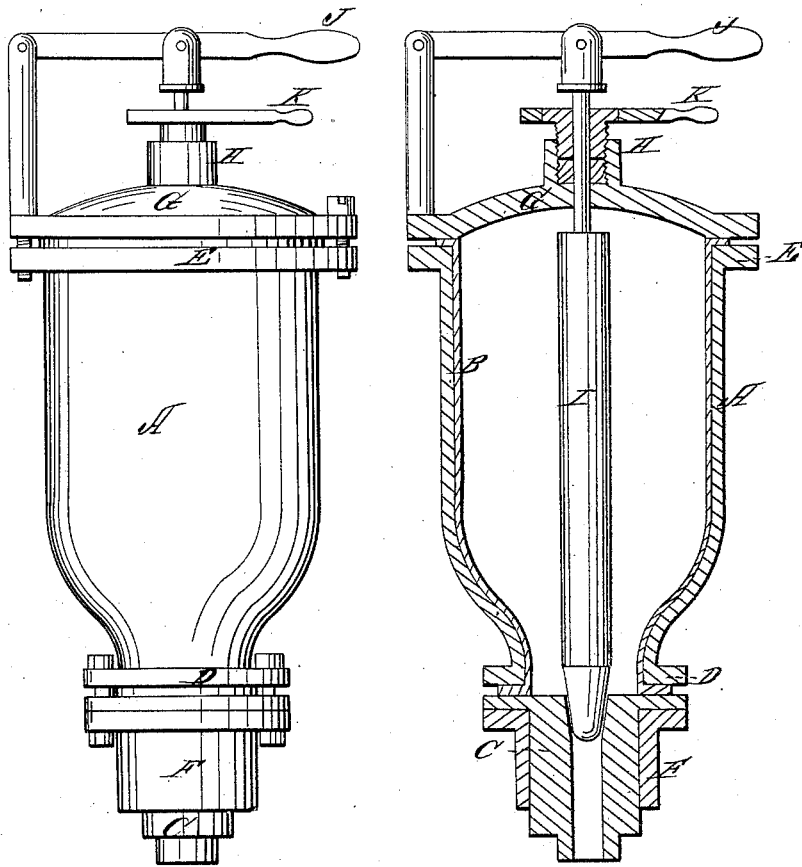


*W. Gee,*  
*Gas Generator,*

*Nº 49,871.*

*Patented Sept. 12, 1865.*



*Witnesses:*  
*George Gee*  
*George L Schorner*

*Inventor:*  
*William Gee*

# UNITED STATES PATENT OFFICE.

WILLIAM GEE, OF NEW YORK, N. Y.

## IMPROVED METHOD OF CONSTRUCTING THE ACID-CHAMBERS OF SODA-WATER APPARATUS.

Specification forming part of Letters Patent No. **49,871**, dated September 12, 1865.

*To all whom it may concern:*

Be it known that I, WILLIAM GEE, of the city, county, and State of New York, and a citizen of the United States, have invented a new Mode of Making and Lining Acid-Chambers or Vessels to hold Acid for Soda-Water Apparatus or Generators; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

To enable others skilled in the art to use my invention, I will proceed to describe its construction and operation.

A is the acid chamber or vessel to hold the acid; B, the lining, of sheet-lead; C, the valve-seat. D is the bottom flange of the acid-chamber A, and E is the top flange. F is the flange that is connected to a generator or soda-water apparatus. G is the top of acid-chamber. H is the stuffing-box to make a tight joint around the valve-rod I. I is the lead valve, which is taper at the bottom to fit into the valve-seat C, to regulate the flow of acid to the generator. J is the lever to raise the valve I. K is a wrench to unscrew the stuffing-box H when the valve is to be raised. This releases the packing and lets the valve rise easy. The stuffing-box H is packed with rubber, so that when the wrench K is turned to unscrew the box the rubber is released, and then there is no friction, but when the box is screwed tight it makes a friction on the rod and prevents the rod or valve from rising.

In all other chambers the box is packed with cotton or hemp, and it must be screwed so tight as to allow the rod or valve to play up and down, and sometimes the valves will blow up and let the acid all down, and then the machine is liable to burst; but with the stuffing-box packed with rubber, and the wrench to tighten the stuffing-box when the valve is down, it cannot rise, as the rubber will make so much friction it would be impossible.

In all other acid chambers or vessels the outside chamber is lined with lead in such a way that the valve-seat is soldered to the lining B up in the neck above the bottom flange, D, and we all know that oil of vitriol will destroy tin or solder, and when this is gone the chamber must be lined with lead. Now, in my plan, I have the lead spun of one piece, and in such a way that I can turn a flange at the bottom as well as the top, and then, having the valve-seat C, of pure lead, bolted between two flanges, making a lead and lead joint, with a little thin white lead between, I can make a chamber for acid free from solder, tin, or rubber joints and burned seams where acid comes in contact. It will be seen that a chamber lined in this way will last for many years, as the acid has no effect on the pure lead.

I do not claim lining acid chambers or vessels with one piece of sheet-lead, as that has been used by myself as well as others; and I do not claim wrenches and stuffing-boxes, as they have been used by myself as well as others; but

What I do claim is—

1. Making an acid chamber or vessel to hold acid for a soda-water apparatus or generators, lined with one piece of sheet-lead, having a flange turned at the bottom as well as the top, with a valve-seat of pure lead bolted between the flange of the acid-chamber and the flange of a generator, making a chamber or vessel free from all solder, tin, burned seams, or rubber joints where acid comes in contact.

2. The wrench K, in combination with the stuffing-box H, for releasing the packing when the valve is to be raised, and to tighten the packing and make a friction and keep the valve from blowing up when the valve is down, as herein described.

WILLIAM GEE.

Witnesses:

GEORGE GEE,  
GEORGE L. SCHIRMER.