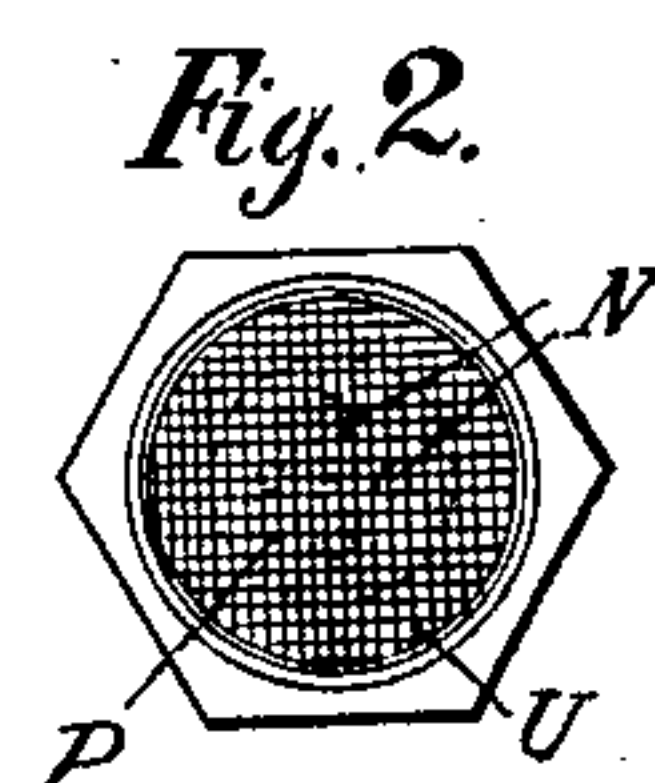
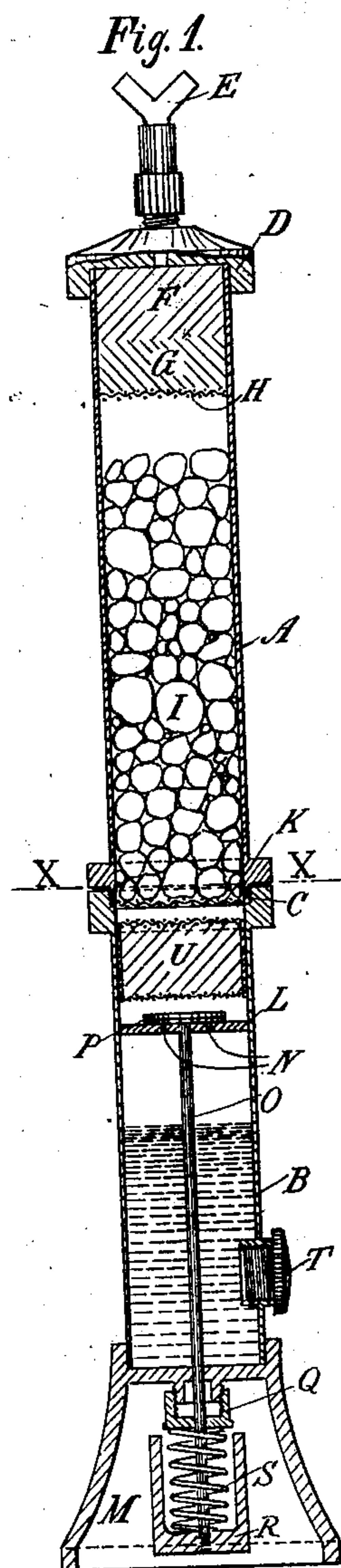


No. 754,472.

PATENTED MAR. 15, 1904.

W. H. MARSH.  
ACETYLENE GAS TORCH.  
APPLICATION FILED OCT. 1, 1903.

NO MODEL.



WITNESSES:  
*Charles G. Hume*  
*Elfrieda Behrens*

INVENTOR  
*William H. Marsh,*  
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*his Attorney*

# UNITED STATES PATENT OFFICE.

WILLIAM H. MARSH, OF SAN ANTONIO, TEXAS.

## ACETYLENE-GAS TORCH.

**SPECIFICATION** forming part of Letters Patent No. 754,472, dated March 15, 1904.

Application filed October 1, 1903. Serial No. 175,329. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. MARSH, a citizen of the United States of America, and a resident of San Antonio, in the county of Bexar and State of Texas, have invented certain new and useful Improvements in Acetylene-Gas Torches, of which the following is a specification.

My invention relates to improvements in acetylene-gas torches in which the water percolates through a porous material into the carbid-chamber, thereby gradually generating the gas as required.

The object of my invention is to furnish a simple torch-light especially for the use of lighting up hidden places for oiling locomotive-engines on the road. The present oil-torches are not satisfactory. I attain this object by the device illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the torch, and Fig. 2 is a top view on line *xx* of Fig. 1.

The torch is of a cylindrical form and embodies two receptacles A and B, which are attached to each other by a screw-thread at C. The top of the receptacle A is closed by a cap D, in which is screwed a gas-burner E, as used for acetylene gas. The upper part of the receptacle A direct under the burner is filled with a layer of cotton F and a layer of asbestos fiber G to purify the gas before it reaches the burner.

To prevent the dislocation of the cotton and asbestos by recharging the receptacle with carbid, a screen-bottom H is inserted into the receptacle A. The lower part of the receptacle A is filled with carbid I to a certain extent, leaving sufficient space for the carbid to expand when slaked. The receptacle A is then closed by a screen-bottom K.

The receptacle B is divided in two compartments by a partition L, which forms a valve-seat, and which has in a circle four valve-holes N and in the center a hole through which passes the stem O of the valve P. A leather washer is underneath the valve to close tightly

the holes when the valve is on the seat. The lower compartment, which is the receptacle for the water, is closed by a bell-shaped bottom M, having in the center a stuffing-box Q, through which passes the end of the valve-stem O. On this end is screwed a push-button R after a coil-spring S is passed over them, whereby the valve is pressed against the seat.

For filling the compartment with water an inlet with a screw-stopper T is in the receptacle B near the bottom.

In the upper compartment of the receptacle B is inserted a cylinder U, having a screen top and bottom. The cylinder is filled with cotton or any other suitable porous material.

To operate the torch, hold it downward and press for a moment the button R and sufficient water will be absorbed by the cotton or any other suitable absorbent in the cylinder U and percolate through the same, thereby moistening the carbid and gradually generating the gas as required. When the entire moisture is absorbed by the carbid, push the button R again.

Having fully described my invention, what I claim as my invention, and desire to secure by Letters Patent, is—

In an acetylene-gas torch of the class described a cylindrical receptacle A, a burner E screwed in the top cap of the same, a screen-bottom H for holding cotton and asbestos layers in place, a cylindrical receptacle B, holding in its upper compartment a cylinder U, with screen top and bottom, containing cotton or other porous material, and the lower compartment having a valve P, on a valve-seat L, with four valve-holes N, in a circle, all set forth and described.

Signed at San Antonio, Texas, this 12th day of September, 1903.

WILLIAM H. MARSH.

Witnesses:

E. H. REED,  
CARTER F. SOMMERS.