No. 648,606. Patented May 1, 1900.

F. E. BUNDY.

ACETYLENE GAS GENERATING LAMP.

(Application filed Sept. 11, 1899.)

(No Model.)

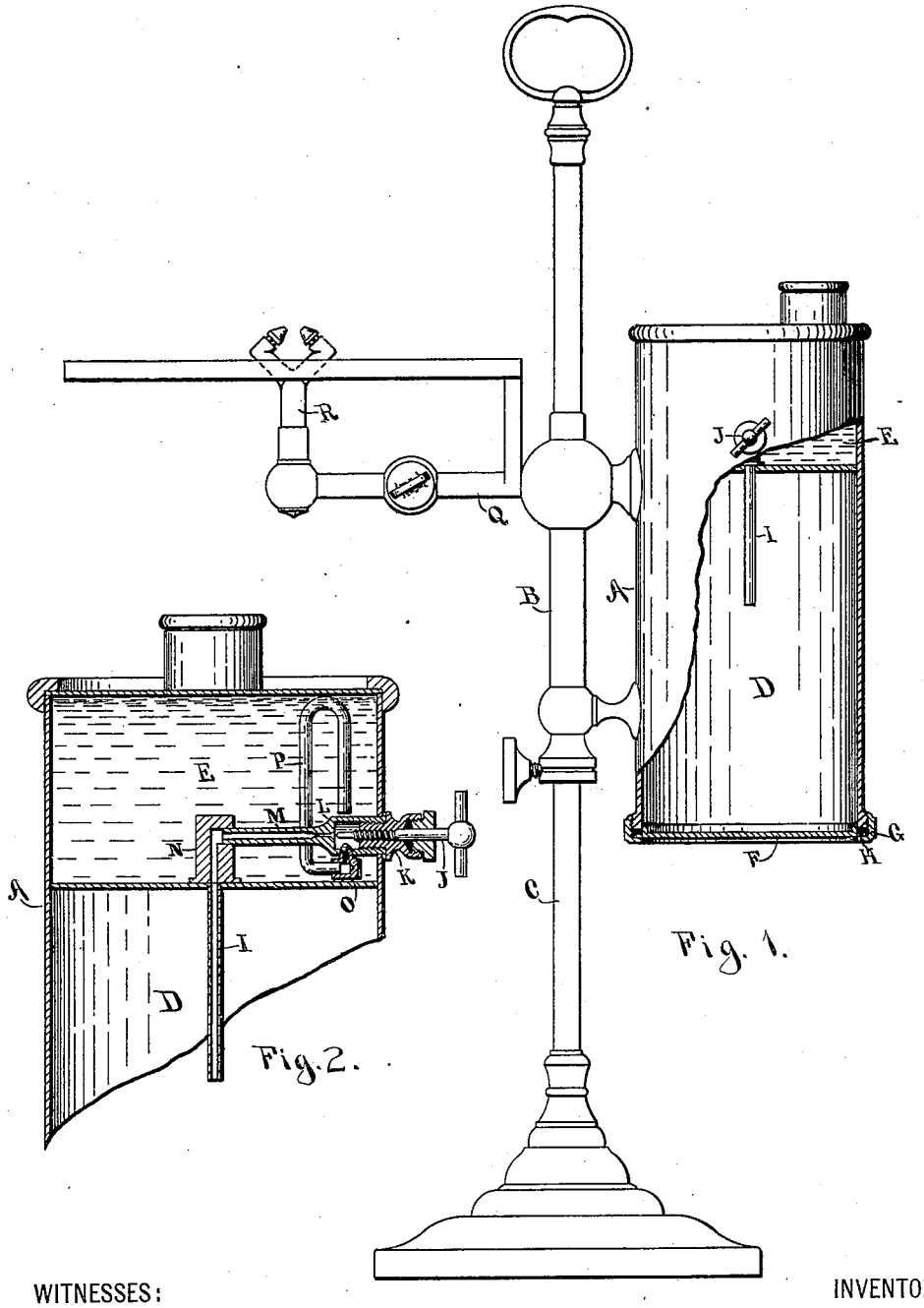

Fig. 1.

Fig. 2.

WITNESSES:

C. Tracy Stagg.

INVENTOR

Frank E. Bundy

BY Eugene Diven

ATTORNEY

UNITED STATES PATENT OFFICE.

FRANK E. BUNDY, OF ELMIRA, NEW YORK, ASSIGNOR TO HARRIET W. BUNDY, OF SAME PLACE.

ACETYLENE-GAS-GENERATING LAMP.

SPECIFICATION forming part of Letters Patent No. 648,606, dated May 1, 1900.

Application filed September 11, 1899. Serial No. 730,122. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. BUNDY, a citizen of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Acetylene-Lamps, of which the following is a specification.

My invention relates more particularly to improvements in the feed mechanism for delivering the water to the carbid in the lamp-generator; and my object is to provide a positive feed under a constant head.

I attain my object by means of the construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of a lamp embodying my improvements, and Fig. 2 details of the feed mechanism.

In both views similar letters refer to similar parts.

A represents the generator, which in this instance is attached to a sleeve B, adjustably fastened upon the standard C. The generator is cylindrical in form and is composed of two parts—the generating-chamber D, in which the carbid is placed either in the form of a cartridge or loosely in a suitable receptacle, and the water-receptacle E, separated from the generating-chamber by a diaphragm, as shown. The bottom of the generating-chamber is provided with a closure especially designed to prevent the escape of gas. This closure consists of a disk plate F, flanged to slide up into the chamber and having an outer edge to overlap the rim of the chamber. Between this overlapping edge and the rim of the chamber is a packing-gasket H, of rubber or other suitable material. A screw-threaded collar G when turned up into place draws the plate and the gasket tightly against the rim of the chamber.

A pipe I delivers the water to the carbid in the generating-chamber, the feed being regulated by the valve J, which is threaded into the cap K of the valve-chamber L, a suitable stuffing-box being provided at the outside of the cap K to make a tight joint around the valve-stem. The valve-chamber L is connected with the pipe I by way of the pipe M and elbow N in the manner shown. Below the valve-chamber is a small box or elbow O, the opening from this box into the valve-chamber being closed by a check-valve, as shown. Connected with the box O is a siphon-pipe P, which rises within the water-receptacle, the short leg of the siphon extending down to near the bottom of said receptacle. The water-receptacle is provided with the usual vented filler-plug. By this arrangement after the water-receptacle has been filled with water and a flow of water started through the siphon-pipe, valve-chamber, and pipe M to the delivery-pipe I the water will continue to be delivered to the generating-chamber under a constant head, the siphon-pipe being maintained full of water until the water-receptacle is empty by reason of the check-valve, which prevents backflow into said pipe from the valve-chamber should the gas-pressure within the generating-chamber become excessive. Escape of gas through the water-receptacle is also prevented by this check-valve.

The top of the generating-chamber is connected by the pipe Q to the burner R.

Having thus described my improvements and without confining myself to their exact mode of construction and application as to the lamp shown by way of illustration, what I claim as my invention, and desire to secure by Letters Patent, is—

1. In an acetylene-lamp, a generator comprising a water-receptacle above a generating-chamber, a valve-chamber, a siphon-pipe to deliver water from the water-receptacle to said valve-chamber at a constant head, a pipe leading from the valve-chamber to the generating-chamber, and a valve to regulate the opening into said pipe.

2. In an acetylene-lamp, a generator comprising a water-receptacle above a generating-chamber, a valve-chamber within said receptacle, a siphon-pipe to deliver water from said receptacle to said valve-chamber at a constant head, a check-valve to prevent backflow through said siphon-pipe, a pipe leading from the valve-chamber to the generating-chamber, and a valve to regulate the opening into said pipe.

In testimony whereof I have affixed my signature in presence of two witnesses.

FRANK E. BUNDY.

Witnesses:

C. TRACEY STAGG,

A. S. DIVEN.