

No. 607,871.

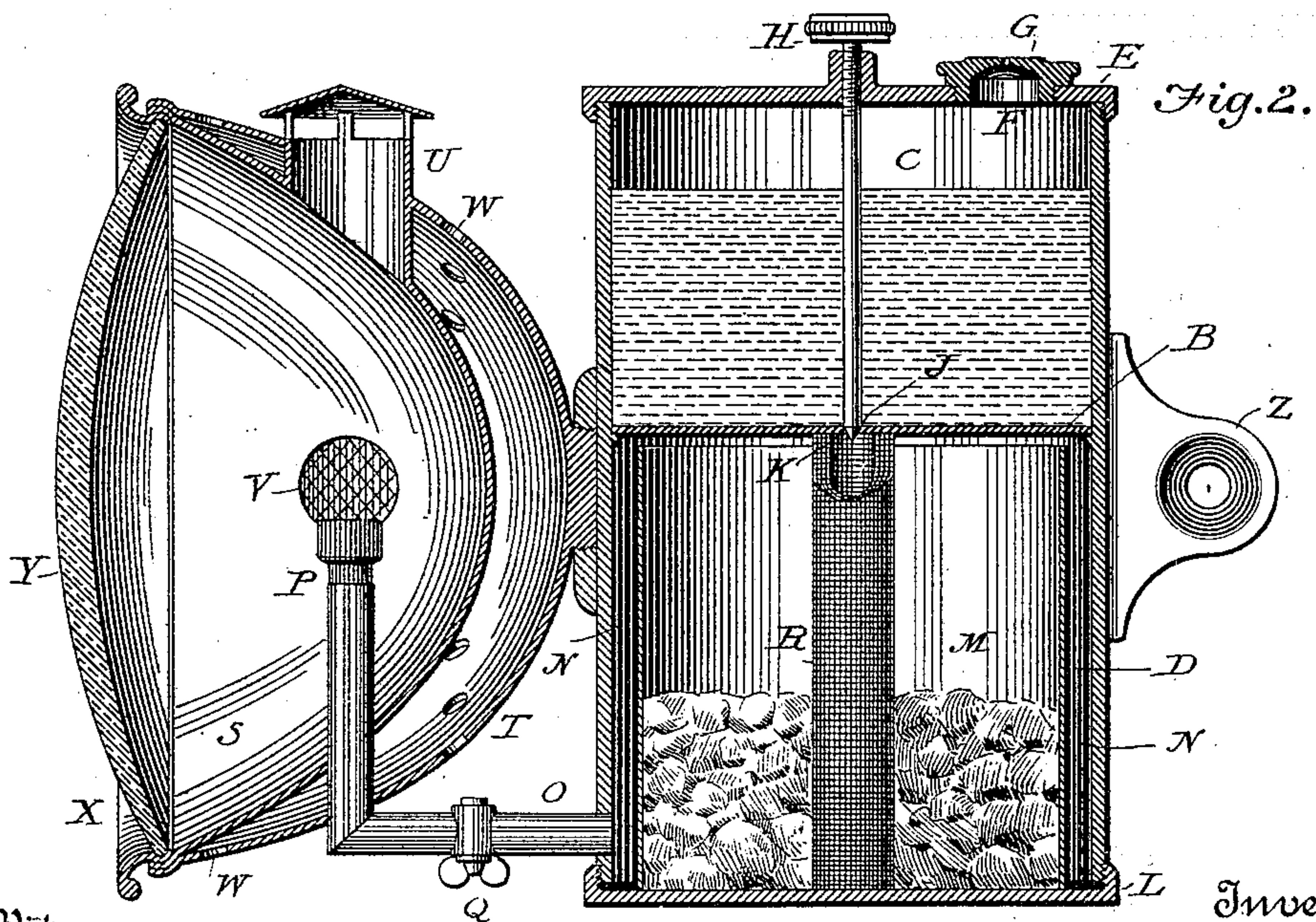
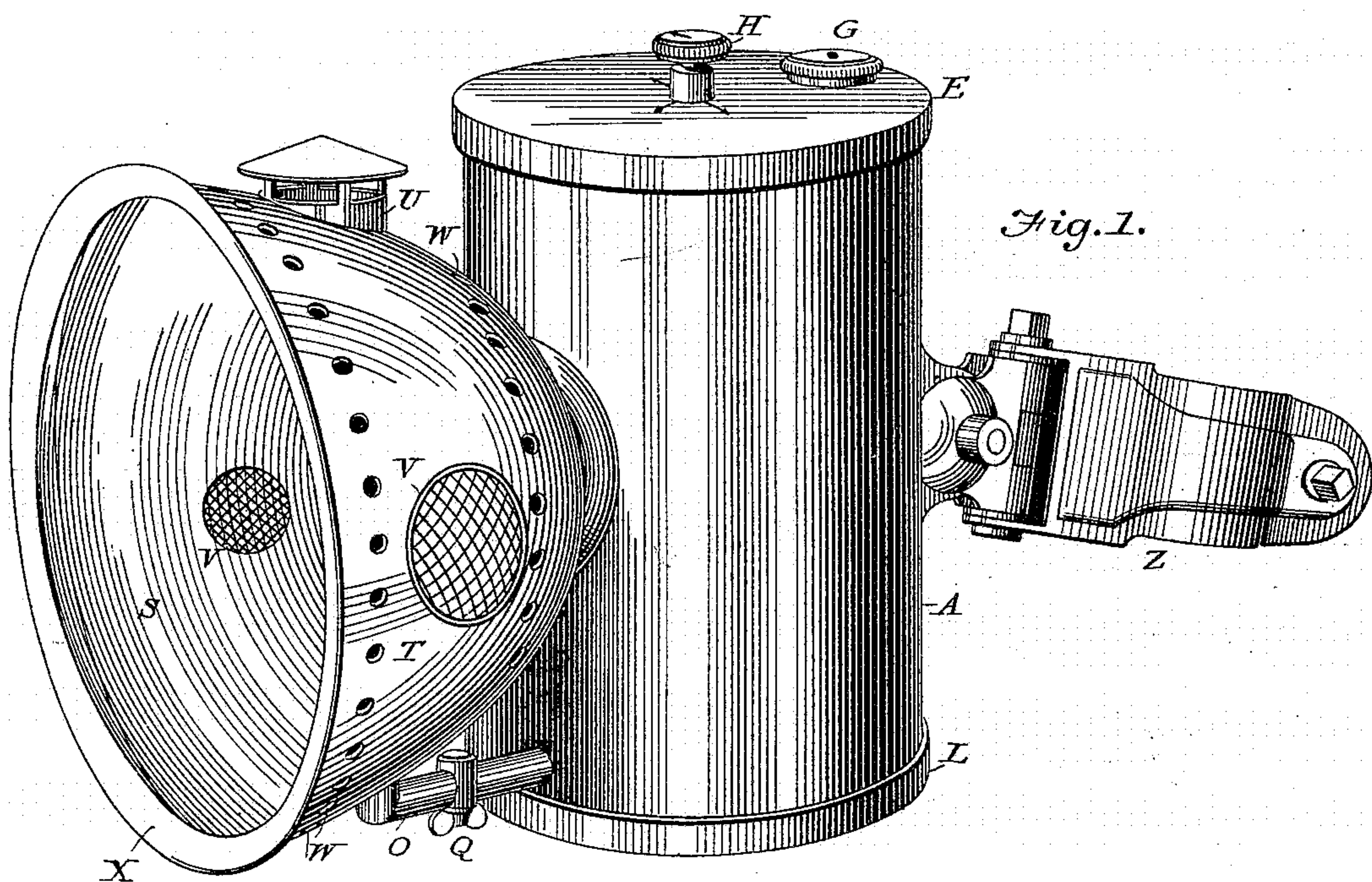
Patented July 26, 1898.

W. N. MOORE.

ACETYLENE GAS GENERATOR LAMP.

(Application filed Jan. 28, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

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ACETYLENE-GAS-GENERATOR LAMP.

SPECIFICATION forming part of Letters Patent No. 607,871, dated July 26, 1898.

Application filed January 28, 1898. Serial No. 668,300. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM N. MOORE, a citizen of the United States of America, and a resident of Washington, in the District of Columbia, have invented certain new and useful Improvements in Acetylene-Gas Lamps, of which the following is a specification.

My invention relates to improvements in acetylene-gas lamps; and one object of my invention is the provision of an ornamental and attractive lamp which will be the embodiment of simplicity and inexpensiveness.

Another object of my invention is the provision of a lamp of this character which will be light in weight and small and compact in size.

Another object of my invention is the provision of a lamp which can be perfectly regulated to give a light of any desired illuminating power and in which the light can be regulated or extinguished by the rider without dismounting from his wheel.

Another object of my invention is the provision of a lamp which can be easily loaded, which will burn for a long time, which cannot be blown or jarred out, which will give a perfect light, and which can be easily taken apart and cleaned, and thus will be thoroughly practical in every particular.

To attain the desired objects, my invention consists of a lamp of the character stated embodying novel features of construction and combination of parts, substantially as disclosed herein.

Figure 1 represents a perspective view of my improved acetylene-gas lamp, and Fig. 2 represents a vertical central sectional view thereof.

In the drawings, A designates the casing or shell forming the body of my lamp, which is provided with an interior wall B, dividing the body into a water or liquid compartment C and a lower chamber or compartment D, the body also having the removable top E, provided with a filling-opening F, having a cover or cap G, and also provided with a needle-valve H, which has its lower pointed end J seated in the opening K in said division-wall. From this construction it will be seen that the chamber can be easily and quickly filled with water, and the needle-valve can be op-

erated to entirely shut off the supply of water or to perfectly regulate its discharge.

To the lower end of the shell or body is removably connected the bottom L, which is provided with a circular wall forming the carbide-chamber M, said wall extending up to near the division-wall, leaving a space N, into which the gas flows from the carbide down through the pipe O and thence to the burner P, the pipe O having a turning cock or valve Q, which shuts off and turns on the flow of gas, as desired. The carbide-chamber is also provided with a centrally-arranged tube R, made from gauze or fine-meshed material and preferably of several layers of the material, the tube when the parts are assembled coming flush against the division-wall and directly under the discharge-opening therein in order that the water may fall into the tube and be delivered properly through the meshes to the carbide, and thus insure a perfect generation of the gas from the carbide.

I provide the lamp with a reflector S, which is surrounded by a wall or shell T, which has a hooded chimney U and is provided with jewels V and with air-escape openings W and has the hinged front X, carrying the lens Y. From this construction it will be seen that the shell which surrounds the reflector leaves a space between said reflector and chamber, and this is of great importance, as it allows the hot air to pass from the reflector into the space and out through the escape-openings, thus preventing the lamp-body from becoming heated.

I also provide the lamp with a suitable bracket Z for connecting the lamp to the cycle, and I prefer to use a steering-head bracket, as it places the lamp where the rider can have perfect control of the regulating-valve.

The operation of my lamp will be readily understood from the description and drawings, and I will simply state that the lamp is loaded with water and carbide and the parts securely assembled, as shown very clearly in Fig. 2, and when it is desired to use the lamp the handle of the needle-valve is moved to a proper distance, as indicated by the lines on the head and top, and the water drops slowly into the gauze tube and from thence passes

into the carbid and generates the gas. The gas flows up and passes out of the carbid-chamber into the surrounding space or jacket and out through the pipe to the burner, where it is 5 ignited, and by reason of the arrangement of the burner the reflector throws the light a long distance and gives an intense illuminating power to the light.

In the event of pressure becoming too great 10 the gas will pass up through the water and out of the escape-opening provided in the cap which covers the filling-opening. I have found by experience that the feed of water can be regulated by means of the indications 15 on valve and body with such precision as to cause the exact amount of water to pass to the carbid and generate the precise amount of gas required, and thus no pressure is confined by the body and a steady and even light 20 is insured.

An important feature of my lamp is the construction of the body or shell to contain the water and carbid chambers, as this enables me to make the entire body of the lamp 25 from a section of tubing, insuring a great saving in expense and making an attractive lamp and one which can be easily cleaned or polished.

I claim—

30 1. An acetylene-gas lamp for bicycles, consisting of a casing or shell containing an upper water-chamber and lower generating-chamber, an adjustable valve arranged in the water-chamber with its lower end seated in a 35 discharge-opening in the lower wall of said water-chamber and its upper end extending

out from said chamber whereby it may be operated by the rider, a removable carbid-holder connected to the casing and arranged in said lower chamber, and a distributing- 40 tube leading from the bottom of the carbid-chamber and abutting against the wall of the upper chamber and surrounding the discharge-opening, whereby the water from the water-chamber passes into the distributing- 45 tube and from thence to the carbid in the carbid-chamber and generates the gas.

2. An acetylene-gas lamp for bicycles, consisting of a casing or shell containing an upper water-chamber and lower generating- 50 chamber, an adjustable valve arranged in the water-chamber with its lower end seated in a discharge-opening in the lower wall of said water-chamber and its upper end extending out from said chamber whereby it may be 55 operated by the rider, a removable carbid-holder connected to the casing and arranged in said lower chamber, and a porous distributing-tube leading from the bottom of the carbid-chamber and abutting against the wall 60 of the upper chamber and surrounding the discharge-opening, whereby the water from the water-chamber passes into the distributing-tube and from thence to the carbid in the carbid-chamber and generates the gas. 65

Signed by me, at Washington, District of Columbia, this 28th day of January, 1898.

WILLIAM N. MOORE.

Witnesses:

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