

UNITED STATES PATENT OFFICE.

JOHN A. MOSHER AND WILLIAM S. HAMM, OF CHICAGO, ILLINOIS, ASSIGNORS
TO THE ADAMS & WESTLAKE COMPANY, OF SAME PLACE.

GAS-STRAINER.

SPECIFICATION forming part of Letters Patent No. 658,569, dated September 25, 1900.

Original application filed August 7, 1899, Serial No. 726,351. Divided and this application filed February 19, 1900. Serial No. 5,716. (No model.)

To all whom it may concern:

Be it known that we, JOHN A. MOSHER and WILLIAM S. HAMM, citizens of the United States, and residents of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Gas-Strainers, which invention was included in and has been divided out from our application of August 7, 1899, Serial No. 726,351, (subject, acetylene-gas generators,) and of which invention the following is a specification, and the accompanying drawings, forming a part thereof, are illustrations.

This invention relates particularly to strain-ers to be used in connection with gases, such as acetylene gas, which may be loaded to a greater or less extent with particles of solid matter.

The object of the invention is to provide an efficient strainer which may be readily opened for cleansing; and it consists in the various parts and arrangement of parts, as hereinafter fully described and as illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the strainer, a support therefor being shown in plan section. Fig. 2 is a front elevation of the strainer, and Fig. 3 is a central longitudinal section there-through.

The body 5 of the strainer may be provided with suitable brackets, as *e*, by means of which it may be secured to a suitable supporting-wall, as A. This body portion 5 is provided with an induction-nipple 6, which preferably is located at one side, and an eduction-nipple 7, preferably located at one end. The induction-nipple 6 is provided with a centrally-apertured screw-cap 9, between which and the end of the nipple there are fitted suitable gaskets 10, thereby forming a stuffing-box around the pipe 11, leading from the generator (not shown) and adapted to enter the nipple. The eduction-nipple 7 is internally threaded to receive the nipple 7^a, by which it is connected with the distributing system 12.

A freely-apertured receptacle 13 is placed within the chamber of the case 5 and is filled with a fibrous filtering material 14, such as cotton or wool, and is so placed that all of the gas is obliged to pass through it in order to

reach the eduction-port. Preferably this receptacle is fitted over the eduction-port, as shown, its end being seated within a centrally-apertured cap 16, and between this cap and the end of the casing there is placed an annular gasket 18 in order that a tight joint may be made. Preferably the aperture of the cap 16 is surrounded by a flange 17, adapted to enter the eduction-port. The end 15 of the receptacle 13 is countersunk in order that its entire area may be utilized for the escape of gas from the filtering material. A screw-plug 19 closes the end of the case 5 opposite the eduction-port and bears upon the cap 20, which closes the corresponding end of the receptacle 13 by spring-pressure. A gasket 21 is interposed between the radial flange of the plug 19 and the end of the side walls of the case 5, so as to secure a gas-tight joint. The plug 19 has a central inwardly-projecting stem 22, which is apertured from its inner end to receive an expansion-spring 23. A follower 24 is inserted within the aperture so as to cover the end of the spring and bear upon a stem 25, formed upon the cap 20. The spring 23 and the follower 24 are held within the aperture of the stem 22 when the plug 19 is removed by a centrally-apertured cap 26, screwed upon the end of the stem 22, its aperture being of less diameter than that of this stem, but sufficiently large to freely receive the stem 25. The plug 19 is provided with an outwardly-projecting boss 27, polygonal in form, to receive a wrench, and it serves the further purpose of providing stock into which the aperture of the stem 22 may be prolonged.

The cap 20 may be of solid material, as shown, or may be perforated, as may be preferred.

The receptacle 13 is of somewhat less diameter than the internal diameter of the case 5, so that gas entering the chamber of the case through the induction-port may circulate entirely around the receptacle and find free entrance through its perforated walls. The spring-pressure of the plug 19 upon the cap of the receptacle 13 insures a tight joint at the farther end of the case, so as to prevent the escape of any gas except through

the filtering material, and still permits the plug 19 to be turned up tightly to secure a tight joint at the outer end of the case.

We claim as our invention—

5 1. In a gas-strainer, in combination, a case having induction and eduction ports, a receptacle made of perforated material for containing fibrous straining material and adapted to cover one of the ports, an apertured re-
10 movable cap for the case, a spring bearing upon the receptacle to force it against the port, and a screw-plug in the aperture of the cap bearing upon the spring.

15 2. In a gas-strainer, in combination, a casing having an induction-port at one side and

an eduction-port at one end, a fiber-filled receptacle made of perforated material seated over the eduction-port and having its end adjacent thereto countersunk, a cap for the opposite end of the receptacle and having an outwardly-projecting stem, a screw-plug closing the end of the casing adjacent to such cap and being apertured from within, and a spring fitted within such aperture and pressing upon the stem of the receptacle-cap.

JOHN A. MOSHER.

WILLIAM S. HAMM.

Witnesses:

PLATO G. EMERY,
G. L. WALTERS.