

J. W. WEAVER.
CARBID FEED DEVICE FOR ACETYLENE GAS GENERATORS.
APPLICATION FILED MAR. 29, 1909.

937,124.

Patented Oct. 19, 1909.

Fig. 1.

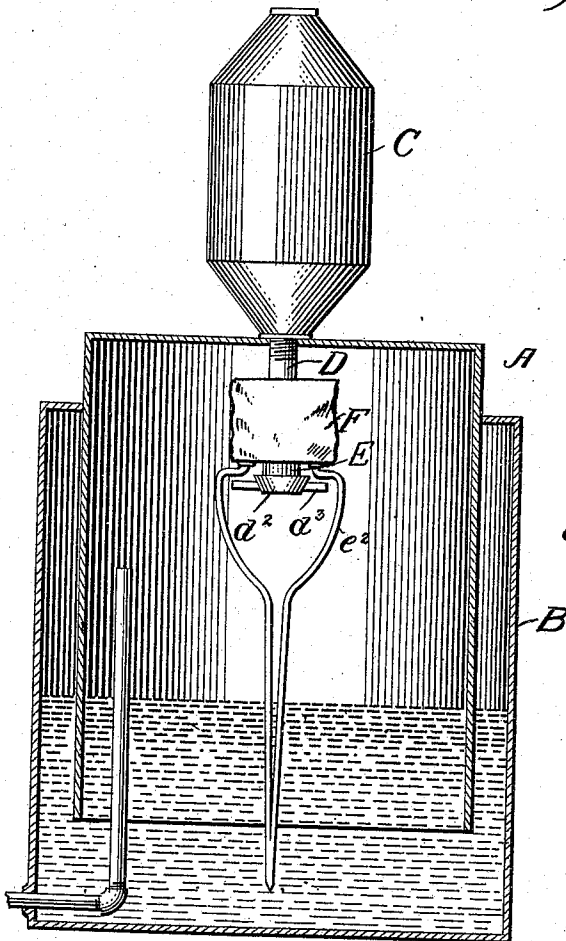


Fig. 2.

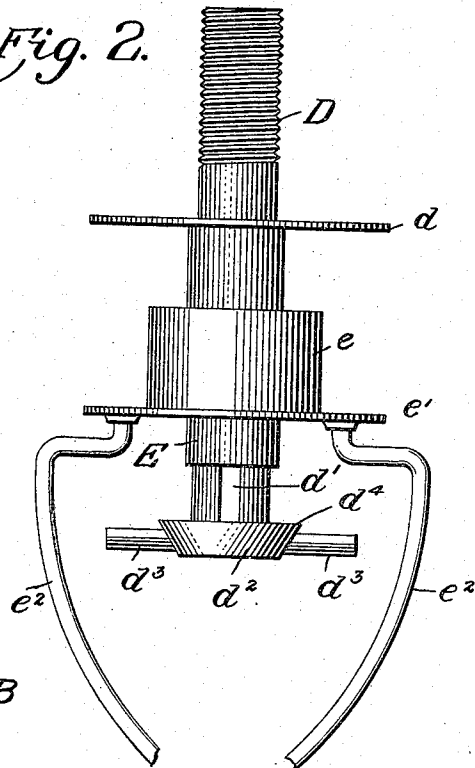
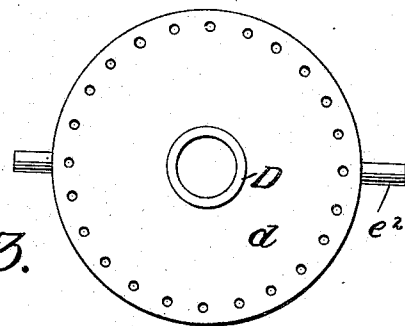


Fig. 3.



Witnesses
Jos. F. Collins
J. P. Appleman.

By

Inventor
John W. Weaver.
J. F. Beale.
Attorney

UNITED STATES PATENT OFFICE.

JOHN W. WEAVER, OF BREMOND, TEXAS, ASSIGNOR OF ONE-HALF TO JOHN B. MURPHY
AND JOHNSON V. WRIGHT, OF CALVERT, TEXAS.

CARBID-FEED DEVICE FOR ACETYLENE-GAS GENERATORS.

937,124.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed March 29, 1909. Serial No. 486,495.

To all whom it may concern:

Be it known that I, JOHN W. WEAVER, a citizen of the United States, residing at Bremond, in the county of Robertson and State of Texas, have invented certain new and useful Improvements in Carbid-Feed Devices for Acetylene-Gas Generators, of which the following is a specification.

My invention relates to carbid feed devices for acetylene gas generators, and it is my object to provide a device of this character which will better protect the carbid therein from exposure to moisture arising from the water receptacle and thus prevent its clogging or its adhesion to the walls of the feed device.

It is also my object to provide an improved feed valve for the carbid which will operate positively and be more sensitive and afford a more direct passageway for the feed.

It is also my object to provide a device which is accessible and readily detached from the bell for purposes of repair, adjustment or cleaning.

In the accompanying drawings forming a part of this specification, Figure 1 is a front elevation of a portion of an acetylene gas generator, partly in section showing my feeding device attached. Fig. 2 is a front elevation of the feeding device detached and the moisture proof curtain removed therefrom. Fig. 3 is a detail view of one of the perforated disks.

Referring more particularly to the drawings: A denotes the bell of an acetylene gas generator; B, the water receptacle therefor; and C, the carbid hopper.

My carbid feed device is composed of a feed pipe D threaded at its upper end to register with an internally threaded coupling in the base of the hopper C; d denotes a metal disk attached to said pipe below the hopper and provided with a series of perforations near its perimeter. The lower end of said pipe is provided at one, or both sides if desired, with a longitudinal slot d^1 through which the carbid feeds as hereinafter described; d^2 denotes a plug or closure brazed to the lower end of said pipe provided with a handle d^3 and a flange d^4 surrounding the lower end of said pipe below said slot; said flange forming a seat for the lower end of sleeve E. Said sleeve forms a closure for said slot when mounted on pipe

D and seated on said flange, and thus shuts off the feed of carbid through the slot; e denotes a collar on said sleeve having brazed thereon a perforated disk e^1 of like diameter to disk d . F denotes a moisture proof cloth surrounding said sleeve and feed pipe and fastened to said disks d and e^1 by sewing or otherwise through the perforations in the disks; the cloth being so fastened as to allow for the vertical play of sleeve on feed pipe. To opposite sides of the under surface of disk e^1 are brazed legs e^2 which are curved outwardly to clear the handle d^3 thence inwardly and downwardly directly under the feed pipe extending downward a suitable distance to bear against the bottom of the water receptacle as occasion demands.

It is evident as bell A lowers, for lack of gas pressure, the legs e^2 strike the bottom of the water receptacle thus forcing upward the sleeve E and simultaneously uncovering slot d^1 or a portion thereof and allowing the carbid to feed into the water until a sufficient quantity passes to supply the requisite amount of gas. When this occurs, the upward movement of sleeve is checked, thus the play of sleeve lengthwise of the slot uncovers a greater or smaller slot surface and allows a larger or smaller carbid supply, tending to keep an even pressure of gas in the bell. The limit of the upward movement of the sleeve is determined by the position of disk d on the feed pipe, and if desired, this sleeve may be made adjustable on said pipe. The moisture proof cloth prevents or shields the carbid in feed pipe from contact with the moisture arising from water receptacle more especially when the slot is closed. The handle d^3 at lower end of feed pipe serves for turning the pipe when attaching or removing it from the hopper. As the sleeve E is mounted upon the feed pipe it is evident the entire feed device is thus readily removed for cleaning, adjustment or repair, as it is readily replaced.

What I claim as my invention and desire to secure by Letters Patent is:—

A carbid feed device embracing a hopper, a detachable feed pipe having at its lower end a longitudinal slot, a closure and flange below said slot and a handle for detachably connecting said pipe, a sleeve loosely mounted on said pipe adapted to move vertically thereon to cover and uncover said slot, a disk rigidly secured to said pipe below said hop-

per, a like disk secured to a fixed collar on
said sleeve having depending legs adapted
to project into the water receptacle, and a
moisture proof cover or fabric connected to
5 said disks adapted to surround the lower end
of said pipe when the slot is covered.

In testimony whereof, I have signed my

name in the presence of two subscribing witnesses.

JOHN W. WEAVER.

Witnesses:

HICKS. HEARN,
H. Y. YELVERTON.