

No. 650,132.

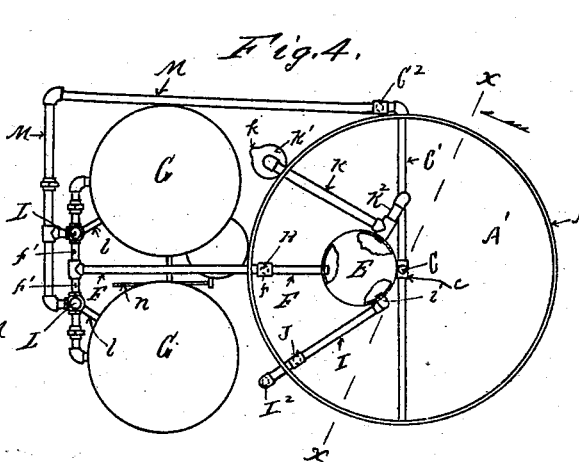
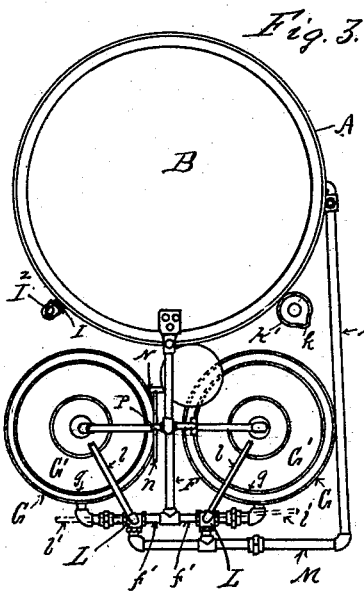
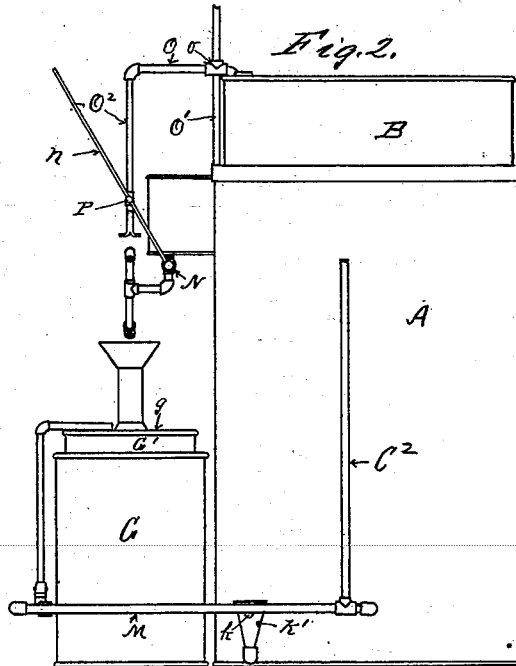
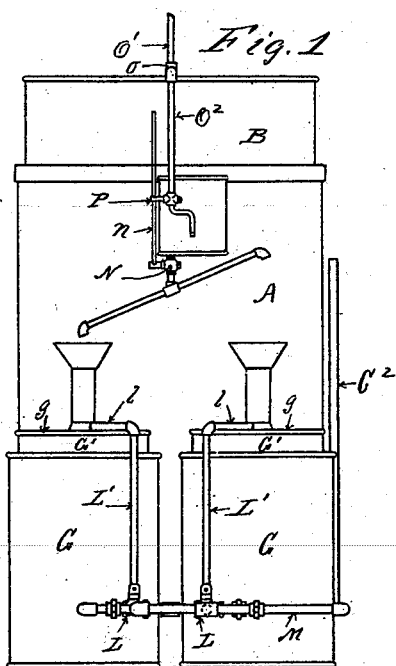
Patented May 22, 1900.

L. O. McLANE.
ACETYLENE GAS GENERATOR.

(Application filed Feb. 8, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES

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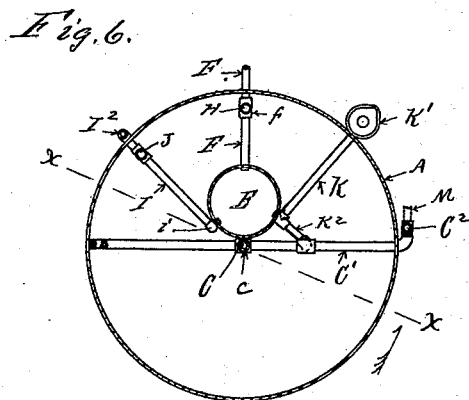
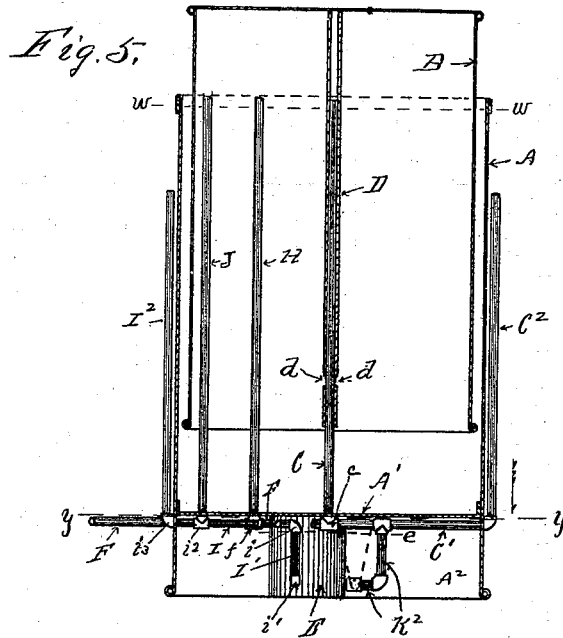
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2 Sheets—Sheet 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

LABAZURE O. McLANE, OF LINESVILLE, PENNSYLVANIA, ASSIGNOR TO HIMSELF, GARRETT C. SCHANCK, AND JOSEPH H. GROUDEY, OF SAME PLACE.

ACETYLENE-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 650,132, dated May 22, 1900.

Application filed February 8, 1900. Serial No. 4,549. (No model.)

To all whom it may concern:

Be it known that I, LABAZURE O. McLANE, a citizen of the United States, residing at Linesville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Acetylene-Gas-Generating Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to improvements in acetylene-gas-generating mechanism of the type set forth and described in Letters Patent No. 626,437, granted upon my application on June 6, 1899; and this invention consists, substantially, in the improvements hereinafter set forth and explained, and illustrated in the accompanying drawings, in which—

Figure 1 is a front view in elevation of my improved acetylene-gas-generating mechanism. Fig. 2 is a side view in elevation of the same. Fig. 3 is a top or plan view of the same. Fig. 4 is a view of the bottom thereof. Fig. 5 is a vertical section of a portion of the same on the line *x x* in Figs. 4 and 6. Fig. 6 is a horizontal section of the same on the line *y y* in Fig. 5.

In the drawings thus illustrating my invention, A is a tank provided with a bottom A', secured therein some distance from the base thereof, so as to leave a space or chamber A² between the bottom A' and the base of the tank A. In the tank A is a gas-holder B, operating therein in the usual manner. In the center of the tank A there is a vertical escape-pipe C, which passes down through the center of the tank-bottom A', where it connects by means of a T^c with a lateral pipe C', which extends laterally in one direction as a brace under the bottom A' and in the opposite direction to a waste-pipe C² outside of the tank A, adapted to extend by suitable connections outside of a building in which the mechanism is being operated. Secured to the top of the center of the gas-holder B there is a pipe D, provided with lateral openings *d*, which pipe

telescopes over the central pipe C and prevents the escape of gas from the holder there-through until the openings *d d* rise above the water-line *w* in the tank A. Under the bottom A' of the tank A at one side of the central pipe C there is a small inclosed tank or chamber E, and passing under the tank-bottom A' and entering the top of a small tank E there is a horizontal pipe F, which leads from the generators G G, and from a T^f under the tank-bottom A' a pipe H extends up into the gas-holder B, so that the gas passes from the generators G through the pipes F and H into the gas-holder, while any condensation accumulating in said pipe passes into the tank E. Under the tank-bottom A' there is another horizontal pipe I, which by means of an elbow *i* and a vertical pipe I' and an elbow and nipple *i'* extends into the bottom of the tank E, and from a Tⁱ in the pipe I under the tank-bottom A' a pipe J extends up into the gas-holder B, and from an elbow *i*³ outside of the tank A a pipe I² leads to the gas-burners, (not shown,) so that any condensation of the gas passing out through the pipes J, I, and I² passes down into the bottom of the tank E. Connected with the bottom of the tank E there is another pipe K, ending in a funnel K' outside of the tank A. This pipe K is also connected by pipes K² with the waste-pipe C'. The object of the pipe K and the funnel K' thereon is to maintain a water-level in the tank E approximately at the dotted line *e*, (see Fig. 5,) which is done by filling the funnel K' up to the notch *k* therein, (see Fig. 2,) which is on a level with the dotted line *e* and serves as an overflow when the water tends to rise above the level of the line *e*, water being supplied to said funnel from time to time to maintain said water-level.

The generators G G are of the type described in my prior patents hereinbefore referred to and are connected with the pipe F by means of branch pipes *f' f'*, in which are ordinary three-way cocks L L, one branch of which cocks connects with a waste-pipe M, which connects with the waste-pipe C² at the side of the tank A. To the stems of the cocks L L are secured upright rods L' L', which extend up to a level with the tops *g* of the gen-

erator-covers $G' G'$, where they are provided with lateral arms $l l$, which engage with the tops g of the generator-covers G' when in the position illustrated in Figs. 1, 2, 3, and 4 and operate to hold the covers G' in place, and when in this position the cocks $L L$ are opened to the pipes f' and F , so that the gas generated will flow freely through the pipes f' , F , and H into the gas-holder; but when the arms $l l$ are turned into the positions shown in the dotted lines $l' l'$ in Fig. 3 the pipes $f' f'$ are shut off, and any gas generated or remaining in the generators $G G$ will then flow therefrom through the waste-pipes M and C^2 . The object of this arrangement is that the covers G' of the generators G cannot be removed without closing the cocks L , so that there can be no backflow of gas from the gas-holder and so that there can be no time that gas can be generated in the generators G when it does not have free egress therefrom. In my former patent the three-way cock N for controlling the water-supply to the generators was operated by lever, chain, and weight mechanism. In this invention the three-way cock N and its connections are the same as that described in said former patent, with the exception that in order to make the operation of the cock N positive both when opening and closing I secure to the top of the gas-holder B a laterally-projecting arm O , which is provided with a T o , which slides freely up and down on a vertical guide-rod O' , secured to the top of the tank A . Through the outer end of the arm O there is a downwardly-projecting rod O^2 , in which is pivoted or swiveled a short lateral rod P , having a hole in the end thereof through which a rod n , secured to the plug of the valve N , slides freely, so that as the gas-holder B moves down and up the rod n is moved so as to open and close

the valve or cock N . All of the other features of the water-supply mechanism herein described having been fully shown and described in my patent hereinbefore referred to, further description thereof is deemed unnecessary.

From the foregoing description the operation of the several parts of the gas-generating mechanism herein described is believed to be so obvious that further reference thereto is deemed unnecessary.

Therefore, having described my invention so as to enable others to construct and operate the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination in an acetylene-gas-generating mechanism, of a tank and a gas-holder operating therein, a small tank under the bottom of the gas-holder tank, a pipe leading into the upper part of said small tank with a branch pipe leading up into the gas-holder, a gas-outlet pipe extending from the lower part of said small tank up to a lateral pipe under the gas-holder tank and leading to a gas-burner-supply pipe with a branch pipe from said lateral pipe extending upward into the gas-holder, a waste-pipe extending from the center of the gas-holder down to a lateral waste-pipe under the bottom of the gas-holder tank, and a pipe and funnel connected with the lower part of said small tank and also with said lateral waste-pipe, substantially as and for the purpose set forth.

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

LABAZURE O. McLANE.

Witnesses:

W. H. STOCKTON,
R. E. GEHR.