

M. E. LOEHR.
ACETYLENE GAS APPARATUS.
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1,059,885.

Patented Apr. 22, 1913.

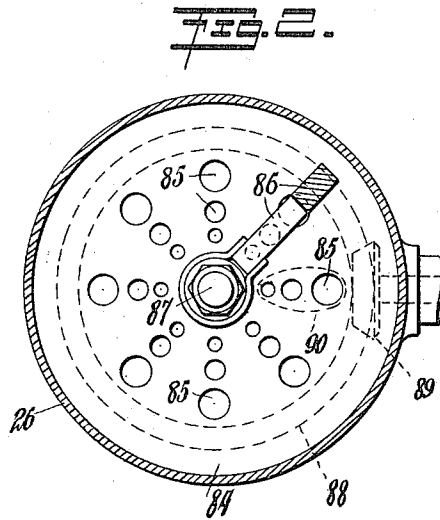
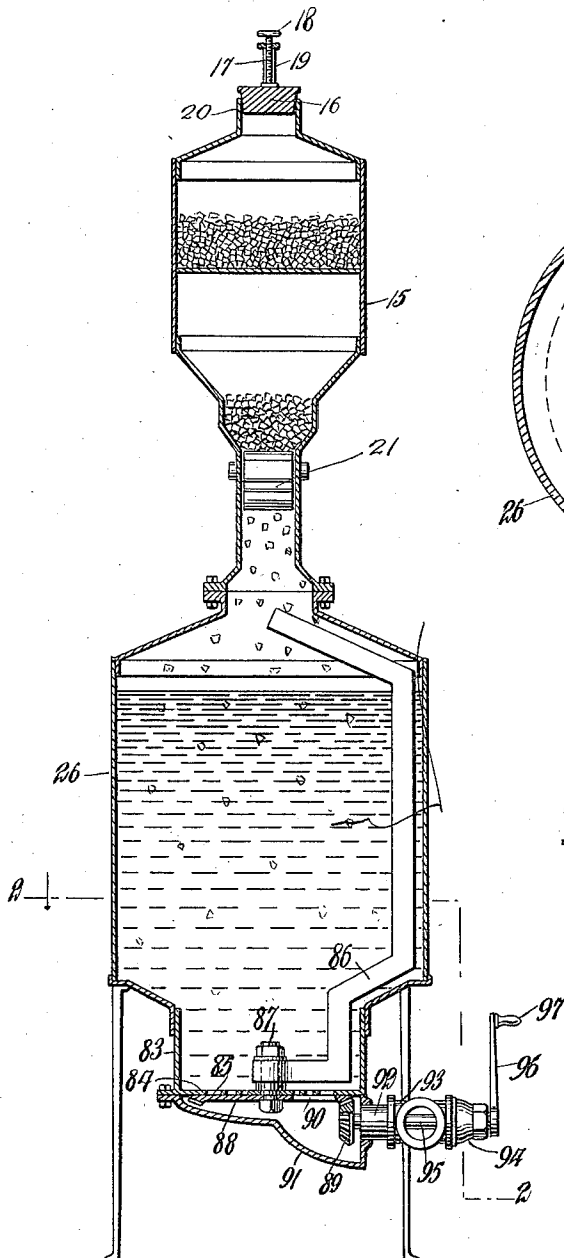


FIG. 1.

WITNESSES
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ACETYLENE-GAS APPARATUS.

1,059,885.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MILES EDWARD LOEHR, a citizen of the United States, and a resident of Claypool, in the county of Kosciusko and State of Indiana, have invented a new and Improved Acetylene-Gas Apparatus, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide means for agitating the carbid to obtain the full gas production thereof; and to provide a generator and apparatus connected therewith to prevent the lodgment or accumulation of sludge therein.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views, and in which—

Figure 1 is a vertical section taken on the median line of an acetylene gas apparatus constructed and arranged in accordance with the present invention; and Fig. 2 is a cross section taken on the line 2—2 in Fig. 1.

In the employment of the apparatus shown in the accompanying drawings, the comminuted carbid is placed in a feeding hopper 15, being introduced therein through the opening which is normally closed by a stopper 16. The stopper 16 is mounted upon the end of a screw 17, the hand wheel 18 whereof is employed to turn the screw to seat the stopper rigidly in closure position. The threads of the screws 17 engage a tapped perforation formed in a bail 19 mounted on the neck 20 of the hopper 15. The carbid is delivered from the hopper 15 by means of a feeding mechanism 21 of any suitable type and construction adapted to precipitate the carbid deliberately and slowly to the water contained in the generator 26.

As shown in the drawings, the lower end of the generator is contracted to provide a well 83. The side walls of the generator are so constructed as to lead all deposits or precipitated solid matter into the well 83. The bottom of the well 83 is formed by a perforated grid 84. The grid 84, as best shown in Fig. 7 of the drawings, is provided with a plurality of series of perforations 85. Rotatively mounted on the grid 84 is a scraper arm 86, a short shaft 87 being provided to mount the said arm. Rigidly attached to the shaft 87 and to move with the

arm 86, is a disk 88. The disk 88 is provided at the perimeter with bevel gear teeth to mesh with the teeth of a bevel gear wheel 89. The disk 88 is provided with an elongated opening 90, which registers with the series of perforations 85 successively when and as the arm 86 is rotated. Below the grid 84 and disk 88 is provided a bottom 91 for the generator 26. The bottom 91 is shaped in cross section as shown in Figs. 2 and 3. The lower section of the bottom 91 is thus provided to receive the end of the discharge pipe nipple 92. The nipple 92 is joined by a T-connection 93, the lateral passage of which is connected with a valve-controlled waste pipe of any suitable and approved construction. Through the T-connection 93 and the nipple 92, and suitably mounted in a bearing formed in the cap 94 thereof, is a shaft 95. The bevel gear 89 is rigidly mounted on the inner end of the shaft 95, while attached to the outer end thereof is a crank 96 having a handle 97.

To cleanse the generator 26 of the residuum sludge, or the slaked carbid, the crank 96 is turned to rotate the disk 88 and arm 86. The arm 86, as shown best in Fig. 2 of the drawings, is shaped to reach within a short distance of the side walls of the generator, and to extend across the upper surface of the grid 84. Any deposits on the side wall of the generator, or upon the surface of the grid, are thus broken down or placed in condition to be slushed off through the perforations 85. Normally the opening 90 is disposed between the series of perforations 85, and thus the disk 88 serves as a valve to prevent the passage of water or partially slaked carbid from the main chamber of the generator 26. When, however, the rotation above described is occurring, the perforations 85 are opened, and the water being drained more rapidly from the bottom 91 than from the body of the chamber, the delivery of the water through the said perforations is rapid to form a wash for the slaked carbid. The sludge is thus drawn from the chamber of the generator and carried by means of the nipple 92 and T-connection 93 to a suitable waste, or impounded.

I claim—

1. In an apparatus such as described and in combination; a water tank; means for delivering calcium carbid thereto; an inclined delivery bottom for said tank; a perforated

grid interposed between the body of said tank and said bottom; a disk mounted adjacent said grid, said disk being provided with an opening to register with the perforations in said grid and to be closed by the imperforate portion between said perforations; manually operative means for rotating said disk; and an agitating arm rotatively mounted on said disk, above said grid, to move the material deposited on said grid.

2. In an apparatus such as described and in combination; a water tank; means for delivering calcium carbid thereto; an inclined delivery bottom for said tank; a perforated grid interposed between the body of said tank and said bottom; a disk mounted adjacent said grid, said disk being provided with an opening to register with the perforations in said grid and to be closed by the imperforate portion between said perforations; manually operative means for rotating said disk; and an agitating arm rotatively mounted on said disk, above said grid, to move the material deposited on said grid, said arm having a vertical extension conforming in shape to the vertical walls of said tank.

3. In an apparatus such as described and in combination; a water tank having a gas outlet; means for delivering calcium carbid to said tank; a grid disposed at the bottom of said tank, having a plurality of series of perforations radially disposed; a disk rotatively mounted on said grid and concentric therewith, said disk being provided with an opening to register with each of said series and to be closed by the imperforate portion between said series, and said disk being further provided with bevel gear teeth at the under side thereof; an agitating arm rotatively mounted upon said disk to extend within said tank to move over said grid in proximity to said grid; a crank shaft for operating said disk; a bevel gear to operatively engage the teeth on said disk; and a crank handle disposed external said tank, for rotating said shaft.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MILES EDWARD LOEHR.

Witnesses:

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CHAS. W. TUCKE.