

O. W. PETERSON.
ACETYLENE GAS GENERATOR.
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957,369.

Patented May 10, 1910.

Fig. 1.

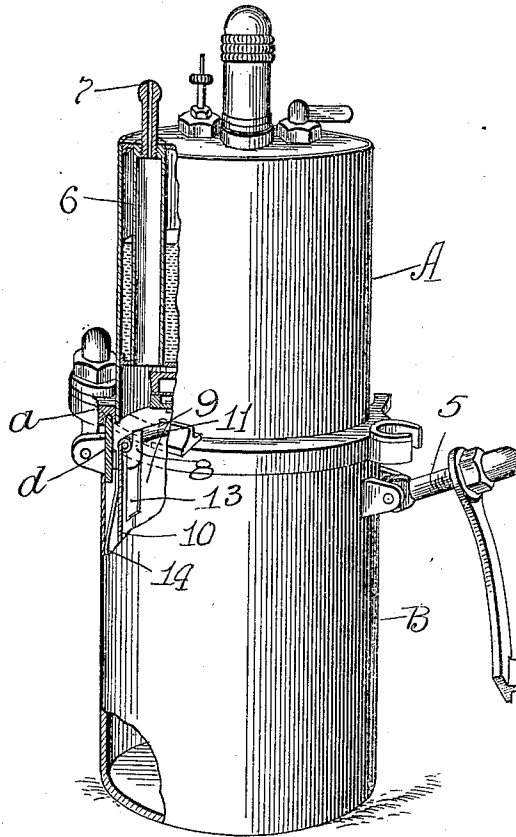


Fig. 2.

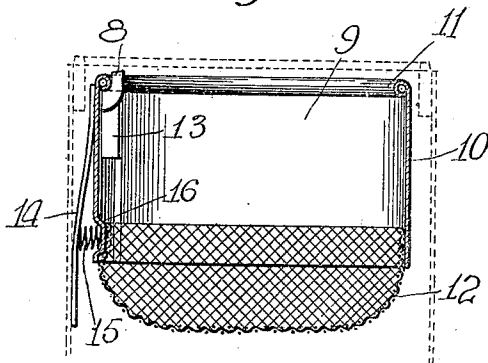
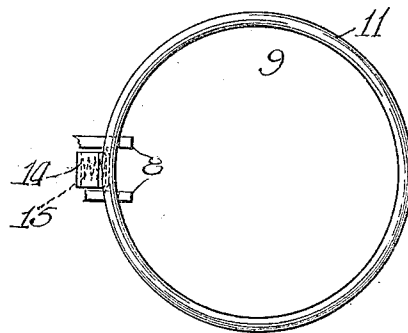


Fig. 3.



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OCTAVE W. PETERSON, OF CHICAGO, ILLINOIS.

ACETYLENE-GAS GENERATOR.

957,369.

Specification of Letters Patent.

Patented May 10, 1910.

Original application filed February 2, 1907, Serial No. 355,400. Divided and this application filed January 19, 1909. Serial No. 473,162.

To all whom it may concern:

Be it known that I, OCTAVE W. PETERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Acetylene-Gas Generators, of which the following is a specification.

My invention relates to improvements in acetylene gas generators, and has particular reference to generators for use in connection with the lighting system of automobiles, launches and other isolated structures, as described in my prior application, Serial No. 355,400, filed February 2, 1907, whereof this application is a division.

Among the salient objects of my present invention is to provide a carbid basket and support of simple and effective construction, arranged for vibration in response to jars of the containing receptacle, to constitute in practice an automatic sieve for screening consumed carbid particles out of the basket.

Other and further objects of my invention will become apparent to those skilled in the art from the following description taken in conjunction with the accompanying drawings, in which;

Figure 1 is a perspective view with parts broken away, of an embodiment of my invention in a structure as described in my aforesaid application; Fig. 2 is a central vertical section through the carbid basket, and; Fig. 3 is a plan view thereof.

In the drawing A indicates in general a cylindrical water receptacle, and B a larger carbid receptacle, the former being detachably superposed upon the latter.

A joint between the water receptacle A and the carbid receptacle B is preferably formed by the conjunction of an exterior grooved ring *a* on the lower edge of the cylinder A and in integral ring *d*, at the top of the carbid receptacle B, and suitable locking devices 5 are preferably provided for retaining the receptacles in associated relation.

Suitable means for securing a regulated flow of water from the receptacle A into the receptacle B, such for instance as described in my prior application, but not herein specifically shown, are provided, and through the water receptacle A extends a tube 6 opening at its lower end through the bottom of the water receptacle to the carbid chamber, and at its upper extremity having a hose nipple 7 of any suitable construction.

The ring *d* has inwardly projecting therefrom at one side of the receptacle B, a pair of parallel hooks 8 whereon is suspended from one side only a carbid basket generally indicated at 9. The basket preferably consists of an annular band or body 10 of sheet metal having its upper edge rolled into a rim 11, and its lower end covered with a screen bottom 12, of wire gauze or like foraminous material, said body 10 having made therein vertical slots 13 conforming in position with the hooks 8, so that the rim at the upper edge of the basket may rest upon the hooks. Thus the basket is supported wholly at one side of the casing, near the top thereof, in a manner to permit its pivotal movement.

For yieldingly maintaining the basket in a suitable position other than that to which it tends gravitationally to assume, I provide a leaf spring 14 fixed to the basket body 10 between the slots 13 and extending downward to bear against the side of the casing or receptacle B, and normally under tension sufficient to maintain the carbid basket nearly horizontal, in operative or sustained position, the action of the spring 14 being preferably reinforced by the action of the spiral spring 15, inserted and suitably secured between the leaf spring 14 or other relatively fixed point on the casing immediately below the pivotal points 8, and at its other end coacting with the lower portion of the basket, preferably with a recess 16, formed in the lower edge of the basket body 10. Owing to this manner of suspension of the basket 9 it is obvious that the basket will vibrate with the slightest jars of the receptacle, and thus, when employed on an automobile, launch, or in other environments where it is constantly subjected to jars, the basket will serve as a continuous automatic sieve to screen the consumed carbid particles therethrough on to the bottom of the receptacle B.

The operation of the basket, in its movement, is to toss the carbid and thereby gradually rotate or turn the mass, thus continuously bringing the larger granules to the top and the smaller powdered particles to the bottom.

Having described my invention, what I claim is:

1. In a gas generator, a carbid receptacle, and a basket having a foraminous bottom, a pivotal support for said basket, and a spring

between the basket and a substantially stationary part, at one side thereof, to substantially balance the weight of the basket and permit it to move in response to jars.

5 2. In a gas generator, a carbid receptacle, a carbid basket therein, pivotally suspended from one side only, said basket having a foraminous bottom and a spring interposed between said basket and the wall of the receptacle, acting to sustain the basket in
10 operative position.

3. In a gas generator, a carbid receptacle, a carbid basket therein, hooks at one side of the receptacle suspending the basket at
15 one side only, and a yielding connection between the basket and the receptacle positioning said basket in the casing for vibration upon its suspension hooks in response to jars.

20 4. In a gas generator, a carbid receptacle, having an internal suspension hook, a carbid basket supported at one side only on said hook, for pivotal movement thereon, and a spring yieldingly holding said basket in
25 sustained position in the casing to vibrate in response to jars.

5. In a gas generator, a carbid receptacle, a carbid basket therein, fixed means pivotally supporting the carbid basket at one side
30 only, a leaf spring interposed between the carbid basket and the receptacle tending to hold the carbid basket in raised position, and an expansion coiled spring interposed

between the lower end of the basket and the receptacle.

35 6. In a gas generator, a carbid receptacle, a pair of suspension hooks carried thereby, a carbid basket having a pair of spaced vertical slots therein receiving said hooks, a vertically disposed leaf spring carried by
40 the basket between the slots thereof, and an expansion coiled cushioning spring carried by the basket and engaging the leaf spring adjacent its free end.

7. In a gas generator, a carbid receptacle, a carbid basket suspended from its upper
45 end at one side thereof from said receptacle, the remaining sides of the basket being free of connection with the receptacle so as to be freely movable and a spring below the suspension point of said basket tending to
50 assist the vibrations thereof.

8. In a gas generator, a carbid receptacle, a carbid basket located therein and spaced
55 from all sides thereof, means suspending the upper edge of the basket from the receptacle, at one side only, and spring means for yieldingly sustaining the basket in position projecting from said suspension means.

In testimony whereof I hereunto set my
60 hand in the presence of two witnesses.

OCTAVE W. PETERSON.

In the presence of—

FORÉE BAIN,
MARY F. ALLEN.