No. 659,086 Patented Oct. 2, 1900.

O. J. MOUSSETTE.

ACETYLENE GAS GENERATOR.

(Application filed Feb. 6, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

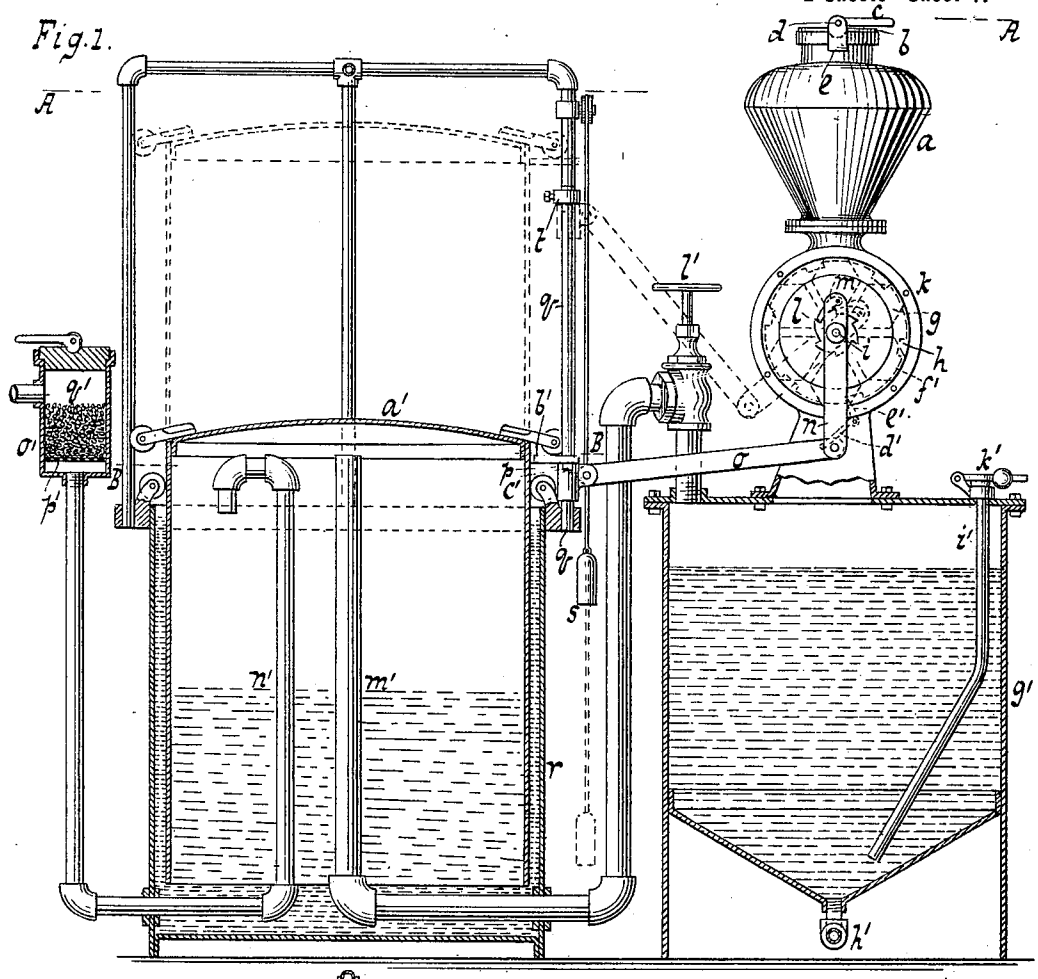
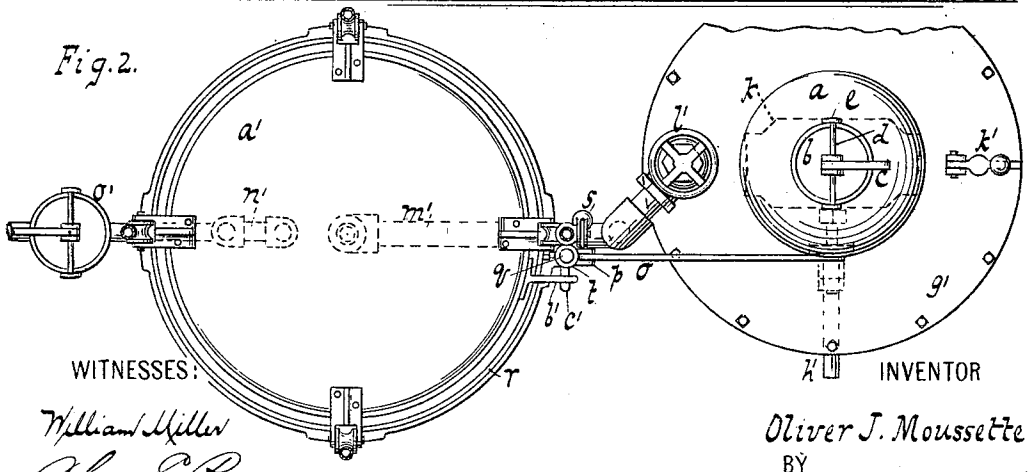


Fig. 2.



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Fig. 3.

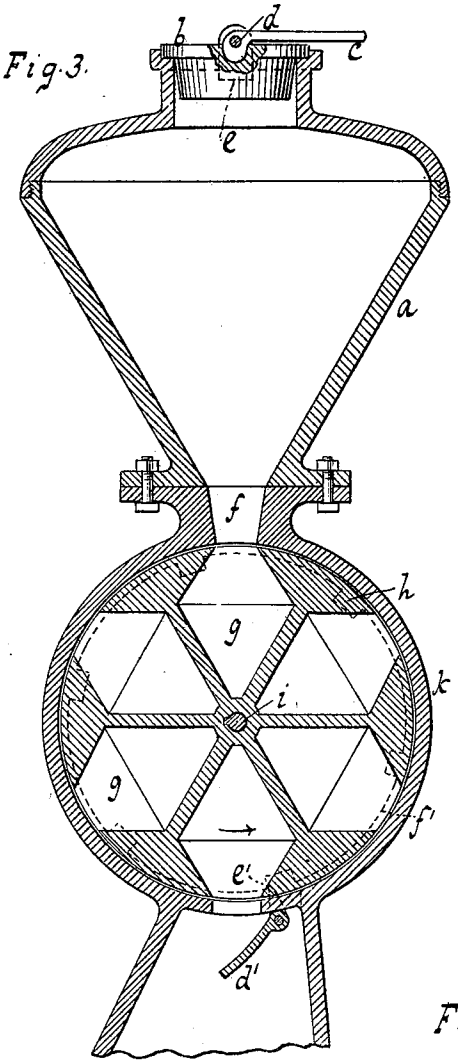


Fig. 4.

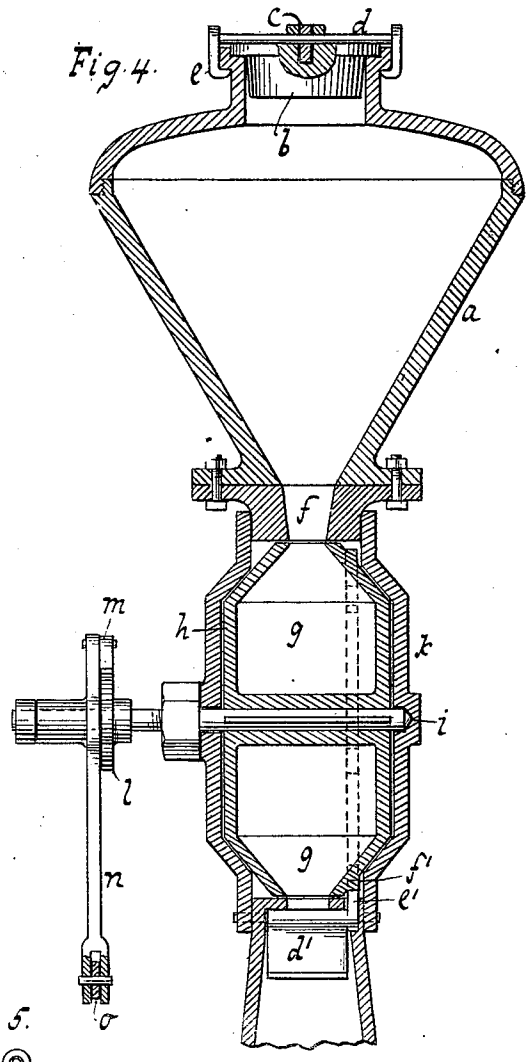


Fig. 5.

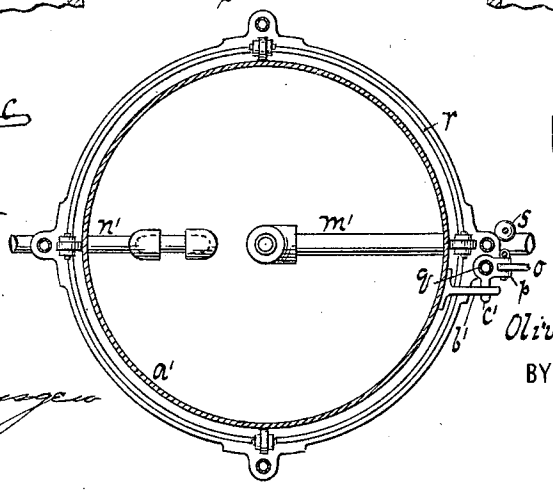


Fig. 6.

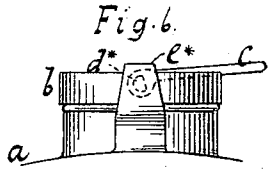
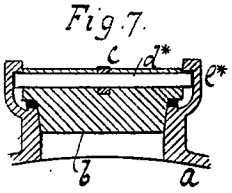


Fig. 7.



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UNITED STATES PATENT OFFICE.

OLIVER J. MOUSSETTE, OF NEW YORK, N. Y.

ACETYLENE-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 659,086, dated October 2, 1900.

Application filed February 6, 1900. Serial No. 4,219. (No model.)

To all whom it may concern:

Be it known that I, OLIVER J. MOUSSETTE, a citizen of the United States, residing at New York, (Rockaway Beach,) in the county of Queens and State of New York, have invented new and useful Improvements in Acetylene-Gas Generators, of which the following is a specification.

This invention resides in certain novel details of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a sectional elevation of the generator. Fig. 2 is a plan view of Fig. 1 in section along A A, Fig. 1. Fig. 3 is a detail sectional view of a hopper and carrier. Fig. 4 is a sectional view at right angles to Fig. 3. Fig. 5 is a section of the gasometer along B B, Fig. 1. Figs. 6 and 7 show a modified manner of fastening the hopper-cover.

A hopper *a* for the charge or calcium carbid is shown with its feed-opening closed by cover *b*. A cam or lever *c* is fulcrumed on pin *d*, pivoted to hooks *e*, which can be slipped under a flange at the mouth or neck of the hopper, and the lever being then swung to locking position its cam or high part presses the cover to its seat to form an air or gas tight closure. A rubber or other suitable packing can be made as additional means for securing a tight joint at the cover. This carbid-holder *a* is shown funnel-shaped or with a restricted outlet or lower mouth *f*, leading to pockets *g* in a carrier *h*. These pockets are shown with constricted mouths, said mouths being smaller or narrower than the belly or wide part of such pockets *g*. The mouth *f* can be of the same size as the pocket-mouth, but can be made larger, if seen fit. The carrier *h* is rotary or mounted on a shaft *i*, having bearings in the case *k* about carrier *h*. This shaft has a ratchet *l*, and a pawl *m* engages the ratchet and is actuated by lever *n* on shaft *i*. A link *o* is jointed to this lever and to a slide or sleeve *p*, which can travel up and down a rod or tube *q*, fixed to or supported by the gasometer *r*. A weight *s*, Fig. 1, connected to the slide *p* by a cord or chain suitably led over a pulley, tends to raise the slide. A stop or collar *t* is so fixed or adjusted on the rod or post *q* that when the slide *p* has risen and been stopped by striking collar *t* the pawl *m* has been moved back far enough to take hold of a succeeding tooth of ratchet *l*. The gasometer has the well-known movable dome *a'*. This dome carries a finger *b'*, extending over a finger *c'* on slide *p*. As the dome rises or is charged the slide *p* under the action of weight *s* follows finger *b'* until such slide is stopped by collar *t*, after which the dome and finger *b'* rise by themselves until the charge is complete. As the dome discharges or descends the finger *b'* is brought back onto the finger *c'* and the slide *p* is depressed against the action of weight *s*. This oscillation of slide *p* with lever *n* gives a step-by-step rotation to the pockets, so that the latter are successively brought to the trap *d'*. The pawl or arm *e'* of the trap when sitting against a high part of disk *f'* holds the trap swung up or closed; but when the disk *f'*, rotating with the pocket-carrier, brings a cut or depressed part to pawl *e'* the trap can open or swing down, and a charge which has been emptied from a pocket onto the trap passes into tank *g'*, conveniently called the "generating-tank." The water or liquid in this tank, with the entering carbid, effects gas generation. The tank or reservoir *g'* has its bottom contracted or funnel-shaped, and sediment from said bottom can be drawn off through the pipe or outlet *h'*. The safety-pipe *i'*, dipping into the water in the tank, is shown with a safety-valve *k'*, which will not allow premature or unnecessary escape of pressure. If gas should accumulate in tank *g'* to exert pressure beyond a certain degree, such gas pressing on the water in the tank will force the water into pipe *i'* and such water will force open safety-valve *k'*. The safety-valve when open allows escape of pressure or of the water and later on of gas in tank *g'*, as required to prevent the tank exploding. The valve *l'* being open, gas can enter or charge the dome *a'* through pipe *m'*. The dome can empty through discharge *n'* to the point of use. In practice it has been found that particles or impurities are apt to pass or work along the discharge *n'*. To prevent annoyance or prevent these particles reaching or clogging the burners, a filter can be employed. The filter is shown comprising a vessel *o'*, in which is a

sieve or strainer p' at some distance from the bottom. Suitable coarse material q', such as pebbles or gravel, will catch or arrest the passage of objectionable particles or material, while allowing the gas to travel on to the point of use. The filter can be closed by a lever-locked cover, the same as the cover b on the hopper a. The constricted mouth f of the hopper and the constricted pocket-mouths tend to cause the carbid to charge easily or properly into and from the pockets. Such constricted pocket-mouths also cause the pockets to empty somewhat gradually into the generating-tank, so that the generation of gas does not occur with objectionable rapidity.

In Figs. 6 and 7 is shown another way of securing cover b which has been found practical. Hooks or lugs e^* are formed or fixed on hopper a, and the lever c has its fulcrum-shaft d^* or the ends of said shaft formed with a high part or as a mutilated circle in cross-section. The cover b having been put in place and turned to bring the ends of fulcrum d^* under hooks e^* and the lever then swung to carry the high parts of the fulcrum against the hooks, the cover b is fastened in closing position.

The constricted mouths of the hopper and pockets are of advantage. The carrier h in its rotation has to cut off a comparatively-narrow width or extent of carbid at the boundary or circumference between the hopper-mouth f and the mouth of pocket g. This narrow width of carbid offers but slight, if any, resistance to the rotation of the carrier, so that the apparatus works prompt and easy. A large mass or area of material extending across the boundary between the edge of the mouth f and the edge of a pocket-mouth would offer resistance to the carrier plowing or cutting through such extent of material; but the constricted pocket-mouths diminish the area of material at this point, so that but a comparatively-small extent of material has to be cut off.

No claim is made herein to what is shown in United States Patent No. 636,683, granted November 7, 1899.

What I claim as new, and desire to secure by Letters Patent, is—

1. A hopper and a generating-tank, combined with a carrier, a ratchet and pawl for the carrier, a slide linked to the pawl-bar, a movable dome having a finger b' made to extend over the slide to press the latter down, a weight for causing the slide to move upward to follow the dome as the latter rises, and a stop to arrest the slide at a certain point while allowing the dome to continue rising independently of the slide substantially as described.

2. A hopper and a generating-tank combined with a carrier having pockets, and a door or trap, said pockets having constricted mouths substantially as described.

3. A hopper and a generating-tank, combined with a carrier, a ratchet and pawl for the carrier, a slide linked to the pawl-bar, a stop t for the slide, a movable dome having a finger b' engaging the slide, and a weight for moving the slide in one direction substantially as described.

4. A hopper and a generating-tank, combined with a carrier, a ratchet and pawl for the carrier, a slide linked to the pawl-bar, a fixed rod having an adjustable stop t for the slide, and a weight and movable dome for reciprocating the slide substantially as described.

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

O. J. MOUSSETTE.

Witnesses:
W. C. HAUFF,
E. F. KASTENHUBER.