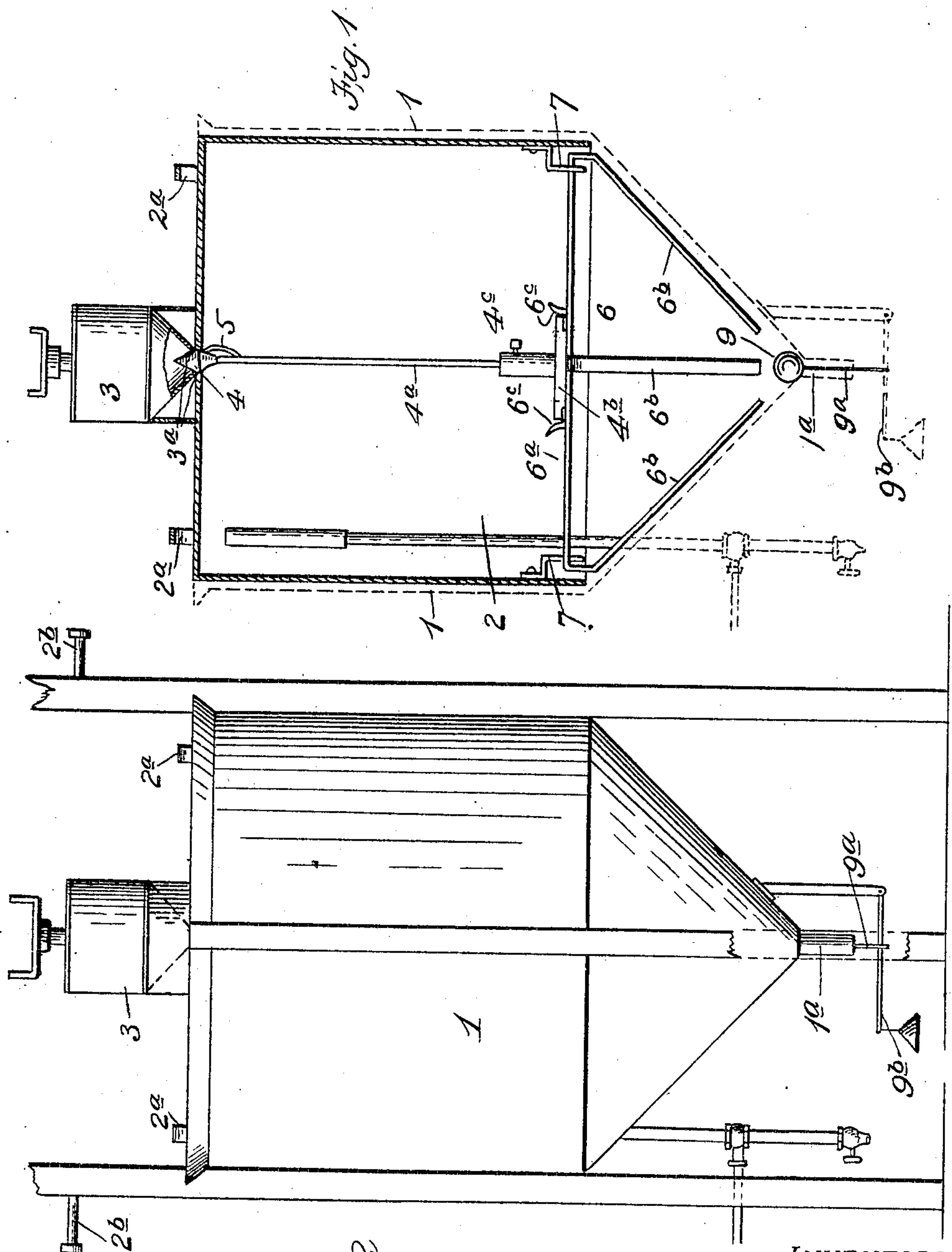


No. 843,429.

PATENTED FEB. 5, 1907.

T. BABIN & J. COLOMB.  
ACETYLENE GAS GENERATOR.  
APPLICATION FILED JUNE 11, 1906.

3 SHEETS—SHEET 1.



WITNESSES:

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*Fig. 2*

INVENTORS.

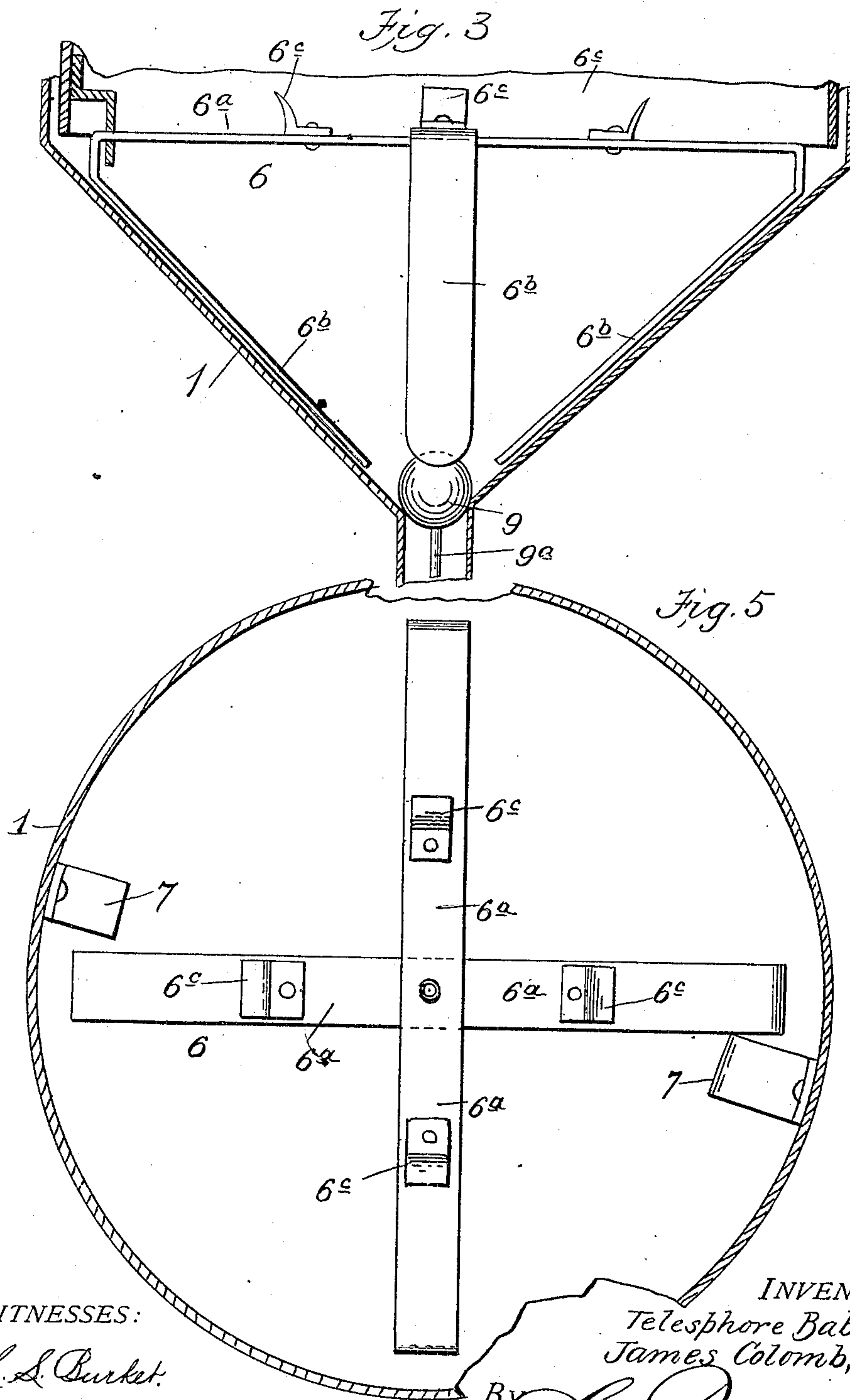
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3 SHEETS—SHEET 2.



WITNESSES:

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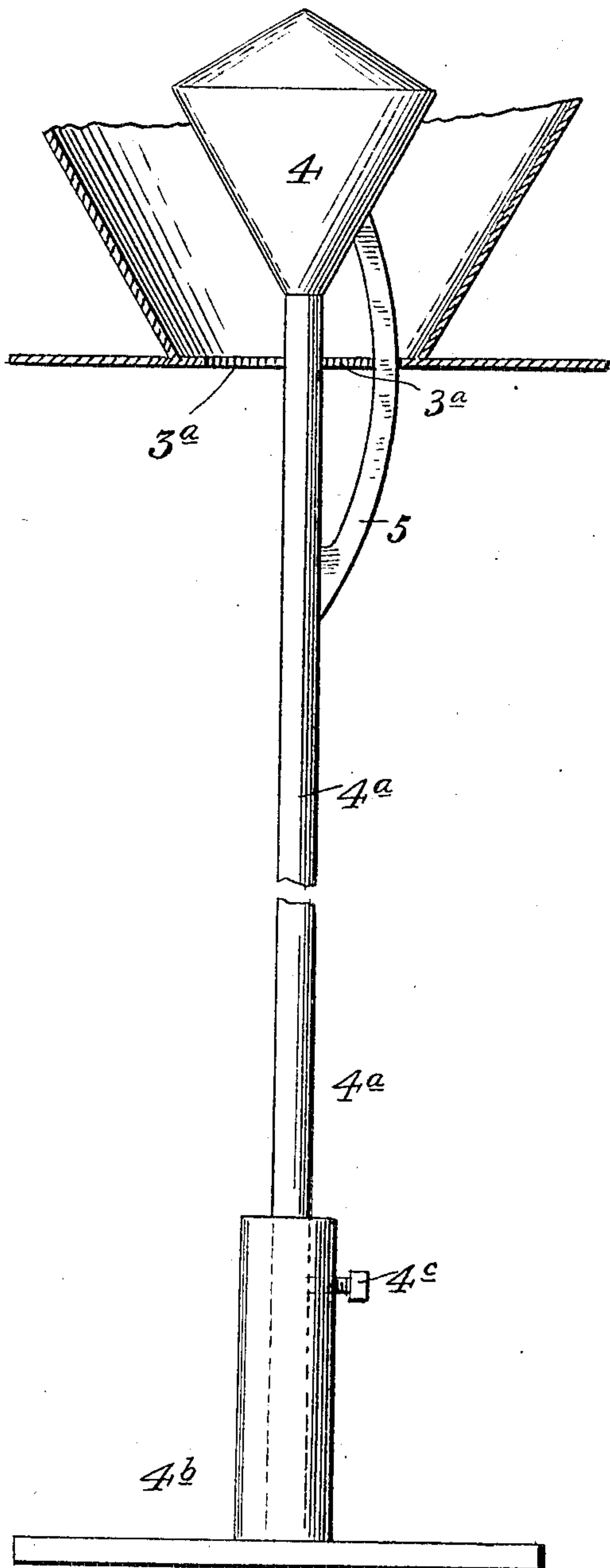
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3 SHEETS—SHEET 3.

*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

TELESPHORE BABIN AND JAMES COLOMB, OF HOUMA, LOUISIANA.

## ACETYLENE-GAS GENERATOR.

No. 843,429.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed June 11, 1906. Serial No. 321,226.

*To all whom it may concern:*

Be it known that we, TELESPHORE BABIN and JAMES COLOMB, citizens of the United States, residing at Houma, Terrebonne parish, and State of Louisiana, have invented certain new and useful Improvements in Acetylene-Gas Generators, of which the following is a specification.

Our invention pertains to improvements in generators or apparatus for manufacturing acetylene gas, particularly for illuminating purposes.

Among other objects had in view is to secure important advantages with respect to efficiency in use of the apparatus or generator and to carry out these in a simple and economic manner and with facility.

Said invention consists of certain structural features substantially as hereinafter fully disclosed, and particularly pointed out by the claims.

In the accompanying drawings, illustrating the preferred embodiment of our invention, Figure 1 is a sectional elevation thereof, certain parts being shown in dotted lines. Fig. 2 is a broken side elevation of the same. Fig. 3 is an enlarged side view showing more particularly the tank-bottom scraper. Fig. 4 is a like view of the carbid-feeding or controlling valve, together with its attached anchoring-weight. Fig. 5 is a cross or horizontal section produced through the tank and bell just above the tank-bottom scraper and the scraper-actuating arms carried or projecting interiorly from the tank.

In carrying out our invention we provide and suitably support in position a stationary tank 1 for receiving or containing the ingredients for generating the gas. Within said tank is arranged, as usually, the bell 2, and upon the latter is fixed a carbid-holder 3, suitably adapted and equipped for feeding or delivering the carbid through the top of the gas-bell into the tank, the latter being adapted, as ordinarily, for supplying it with the requisite water, as shown. Said bell is suitably provided at the top with eye-lugs 2<sup>a</sup> to receive pins 2<sup>b</sup>, suitably held in tank-supporting uprights for the proper retention in position of the gas-bell, so that in recharging the apparatus no gas will be lost, as will be readily understood.

A carbid-feed-controlling valve 4, preferably of the general outline disclosed, with a lower tapering or effective surface, is arranged to work in the lower tapering portion

of the carbid-holder 3 and to be seated within and close and open the passage-way 3<sup>a</sup> between said carbid-holder and the gas-bell 2, as shown, as in suitably supplying the carbid and in restricting its supply. Said valve has its central downward-extended stem 4<sup>a</sup> equipped at the lower end with a preferably inverted-T form of casting or weight 4<sup>b</sup>, the vertical portion thereof being tubular and receiving said stem and provided with a set-screw 4<sup>c</sup>, effecting adjustable connection therebetween, the utility of the adjustability thereof being presently made apparent. Said valve has secured to its lower tapering portion, below the point, however, entering its seat, the upper end of what may be termed a "scraper" or "bar" 5, whose opposite or lower end is secured to the valve-stem 4<sup>a</sup>, said bar or scraper being adapted when the valve is raised from its seat to engage the edges or surface of the latter for scraping or cleaning the same, as will more fully appear later. Suitably arranged within the tank in its lower portion is an additional scraper 6, comprising, preferably, crossing and secured-together bars 6<sup>a</sup>, provided with or terminated into arms or scrapers proper, 6<sup>b</sup>, inclined inward and downward and adapted to rest upon the corresponding surface of the tank-bottom, so that as the scraper is suitably actuated, as presently stated, they may serve to scrape or remove the carbide residue from the tank-bottom and also agitate the same, thus provide for its suitable conversion in the water in aiding the gas-generating operation. Said crossing-bars 6<sup>a</sup> are adapted to be engaged from opposite sides near their ends by studs or projections 7, secured to and offset from the inner surface of the gas-bell 2, by manually reciprocating the latter, as is apparent, in effecting the aforesaid scraping and agitating operation. Said crossing-bars are equipped at suitable points with upstanding preferably outer end curved or pointed projections or studs 6<sup>c</sup> to provide for the reception within the space bound thereby of the horizontal or base member of the weight attachment 4<sup>b</sup>, whereby as the gas-bell is manually reciprocated the valve-stem-carried scraper 5 will be accordingly actuated for effecting the cleaning or scraping the valve-seat as aforesaid. The curving or pointing of the studs 6<sup>c</sup> prevents the liability of the weight attachment 4<sup>b</sup> lodging thereon, as is obvious.

It is noted that occasionally dust and



smaller particles of carbid become decomposed by moisture around the valve-seat 3<sup>a</sup> within the carbid-holder. This prevents the flow of the carbid in the latter and allows the gas-bell to sink or lower, bringing the valve-seat into such position or relation with the scraper 5 as to cause the latter to scrape the edges of said valve-seat, and thus dislodge the accumulation of decomposed carbid or residue.

If it be desired that the gas-bell should rise from one to five inches, more or less, before the weight should be permitted to so affect the valve 4 as to seat it, this may be provided for by accordingly adjusting the connection between the valve-stem and said weight by suitably manipulating the set-screws 4<sup>c</sup> and the valve-stem, as will be readily understood.

Secured in the bottom of the tank 1 is the gas-outlet pipe 8, extending well up into the gas-bell within the gas area for receiving the gas, and which pipe is suitably equipped, as with a piece of cotton or otherwise, for filtering the gas in its passage therethrough and before reaching the service-pipe, said outlet-pipe being also adapted for the attachment thereto of the latter.

In the extreme lower tapered end of the water, &c., tank 1 is arranged or seated, preferably, a rubber ball-valve 9 for the escape or discharge of the residue, the stem 9<sup>a</sup> of said valve extending down through an outlet-pipe 1<sup>a</sup>, depending from said tank, said stem also being pivotally connected to a weighted lever 9<sup>b</sup>, suitably supported in position.

We claim—

1. An acetylene-gas generator having its carbid-holder valve equipped with a scraper effective to engage the valve-seat when the valve is open.

2. An acetylene-gas generator having its carbid-holder valve equipped with a scraper comprising a laterally-arranged bar, with one end connected to the valve below the seating-point thereof and the other end connected to the valve-stem.

3. An acetylene-gas generator having its carbid-holder valve equipped with a scraper effective to engage the valve-seat when the valve is open, a gas-bell and means arranged intermediately of the latter and the stem of said valve, adapted to provide for manipulating said scraper by manually actuating said gas-bell.

4. An acetylene-gas generator having its carbid-holder valve equipped with a scraper effective to engage the valve-seat when the valve is open, a gas-bell provided upon its interior, near the lower open end, with offset studs or projections and means intermediate

of the valve-stem adapted for engagement with said studs and valve-stem as the gas-bell is manually reciprocated, for actuating said scraper.

5. An acetylene-gas generator having its carbid-holder valve equipped with a scraper adapted to engage the valve-seat when the valve is open, and a weight applied to the valve-stem for the retention of the valve in position as the gas-bell rises.

6. An acetylene-gas generator having its carbid-holder valve provided with a scraper for engaging the valve-seat when the valve is open, and a weight adjustably applied to the valve-stem.

7. An acetylene-gas generator having arranged in the bottom of its tank a scraper, a gas-bell, and means intermediate of said scraper and gas-bell adapted, as the latter is manually actuated, for operating said scraper.

8. An acetylene-gas generator having arranged in the bottom of its tank a scraper comprising secured-together crossing-bars provided with inward and downward inclined arms for engagement with said bottom, and a gas-bell provided with means for operating said scraper as the latter is manually actuated.

9. An acetylene-gas generator having arranged in the bottom of its tank a scraper comprising secured-together crossing-bars provided with downward and inward inclined arms or scrapers proper, and a gas-bell provided upon its interior, near the lower end, with offset studs adapted to engage said bars as the gas-bell is manually actuated for operating said scraper.

10. An acetylene-gas generator having its carbid-valve provided with a scraper for engagement with the valve-seat when the valve is open, a weight attachment for the stem of said valve, a second scraper for engaging the inner surface of the bottom of the tank of the generator, and comprising secured-together crossing-bars provided with downward and inward inclined arms and with upstanding studs or projections for engagement with the base of said weight attachment and a gas-bell equipped upon its interior with offset studs or projections adapted to engage said bars of the latter scraper.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

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JAMES COLOMB.

Witnesses:

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EDIE J. BOUDREAUX.