

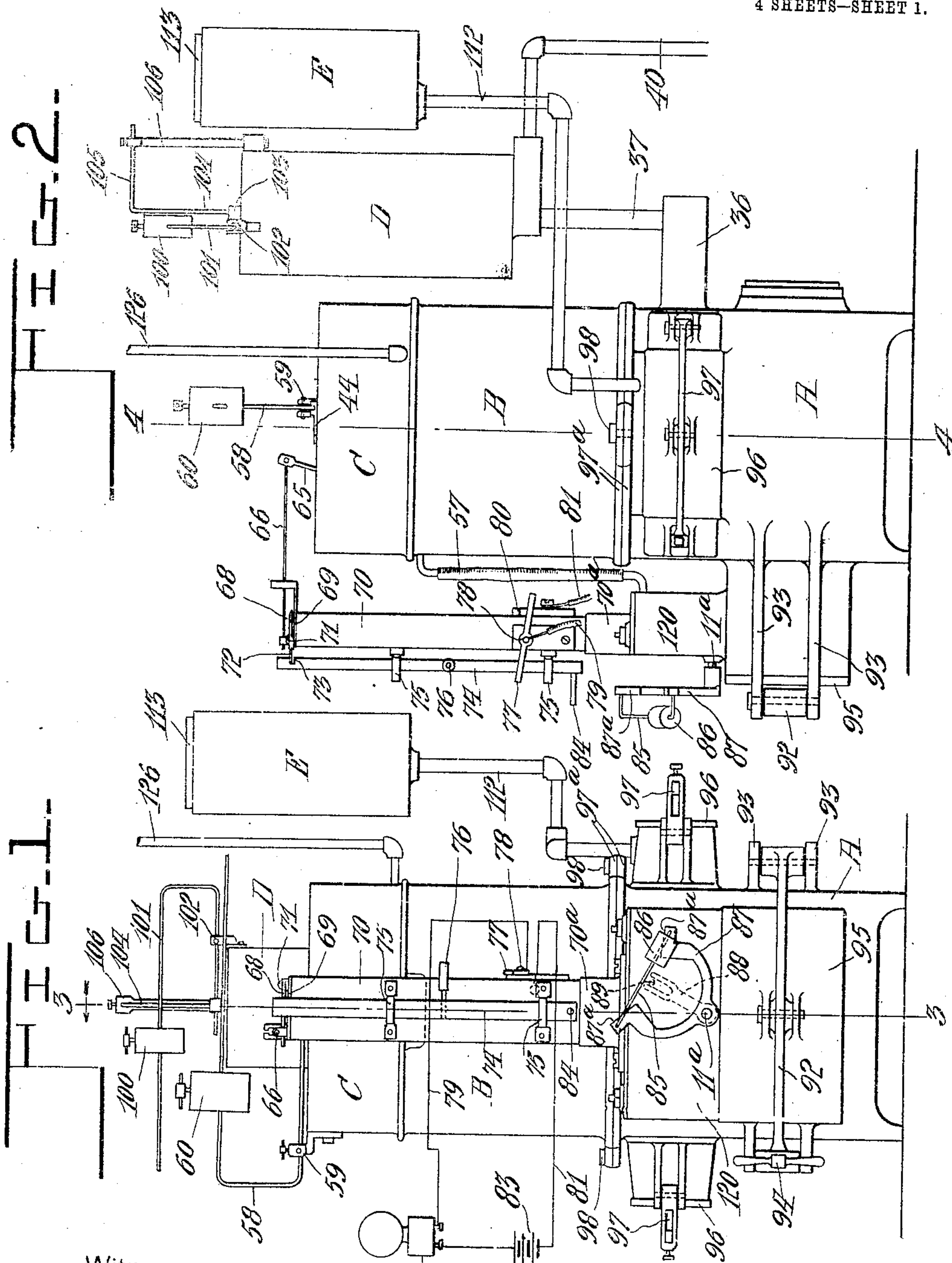
No. 842,962.

PATENTED FEB. 5, 1907.

G. LAPORTE.
ACETYLENE GAS GENERATOR.

APPLICATION FILED OCT. 23, 1905.

4 SHEETS—SHEET 1.



Witnesses:

John T. Scufferin
F. H. Gibbs

Inventor,

George Laporte

By

Marion & Marion

Attorneys

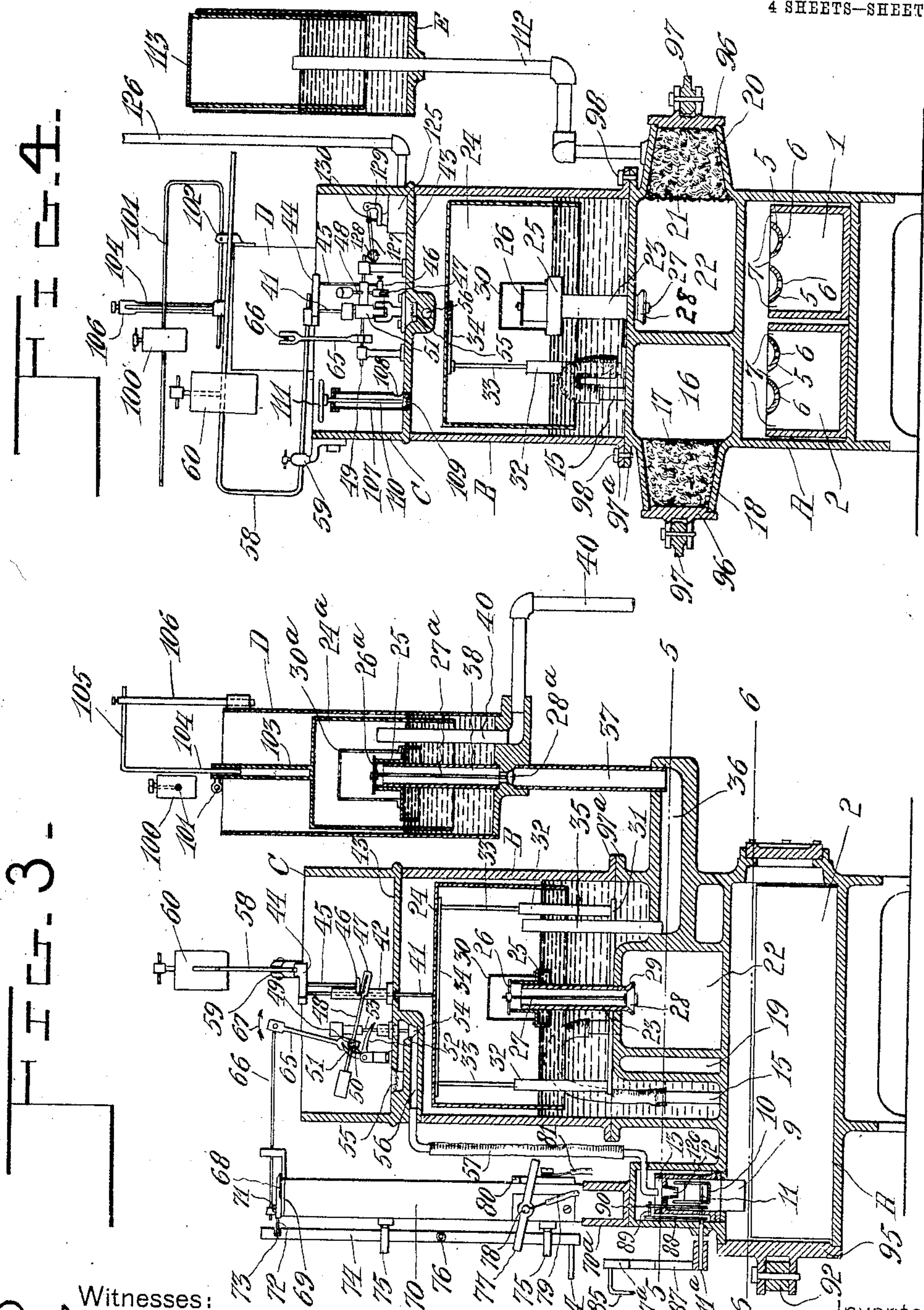
No. 842,962.

PATENTED FEB. 5, 1907.

G. LAPORTE.
ACETYLENE GAS GENERATOR.

APPLICATION FILED OCT. 23, 1905.

4 SHEETS—SHEET 2.



Witnesses:
John F. Defferwald
J. H. Gibbs

Inventor,
George Laporte,
By *Marion & Marion*
Attorneys

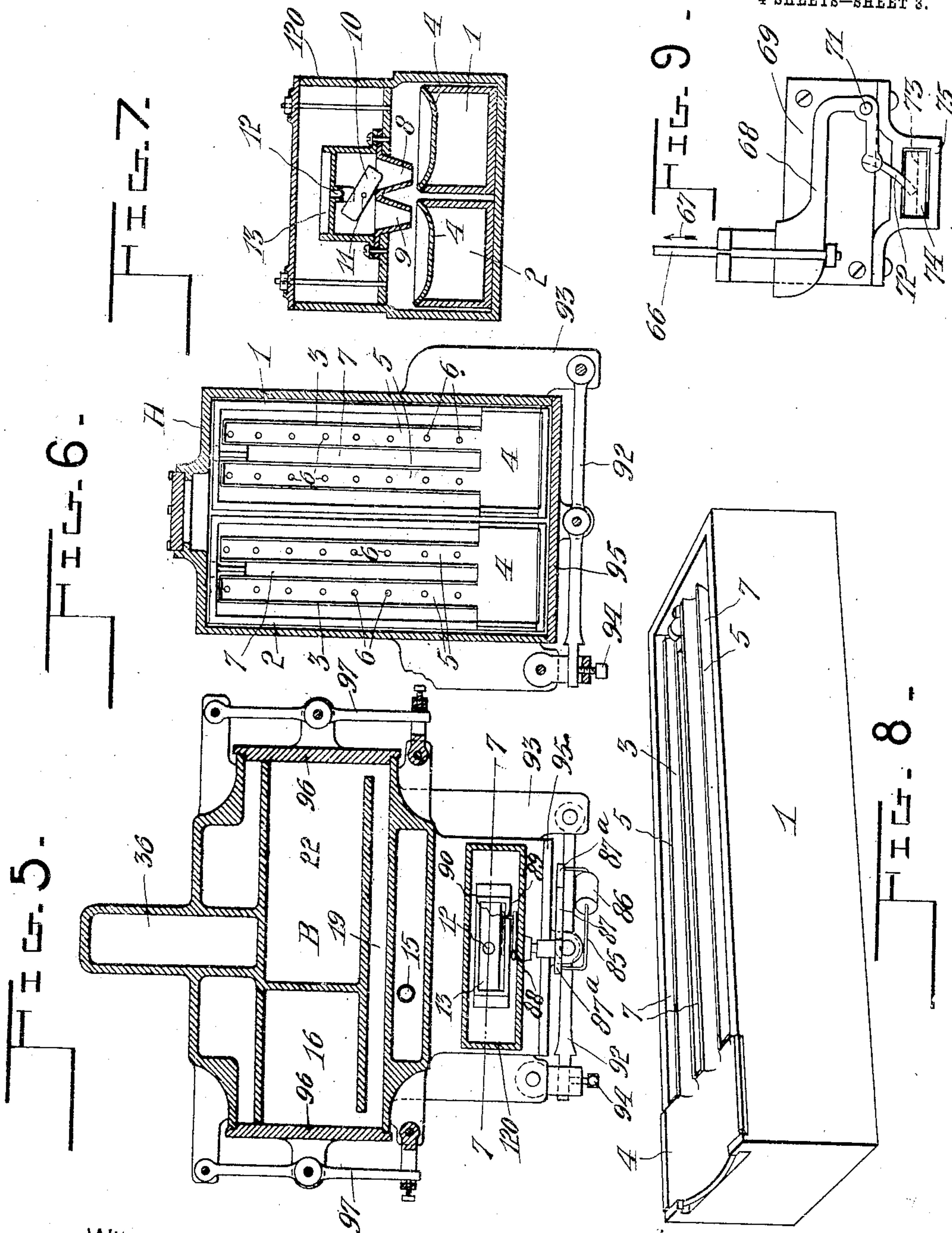
No. 842,962.

PATENTED FEB. 5, 1907.

G. LAPORTE.
ACETYLENE GAS GENERATOR.

APPLICATION FILED OCT. 23, 1906.

4 SHEETS—SHEET 3.



Witnesses:

John T. Deufferwiel
F. H. Gibbs

George Laporte, Inventor,

By

Marion & Marion

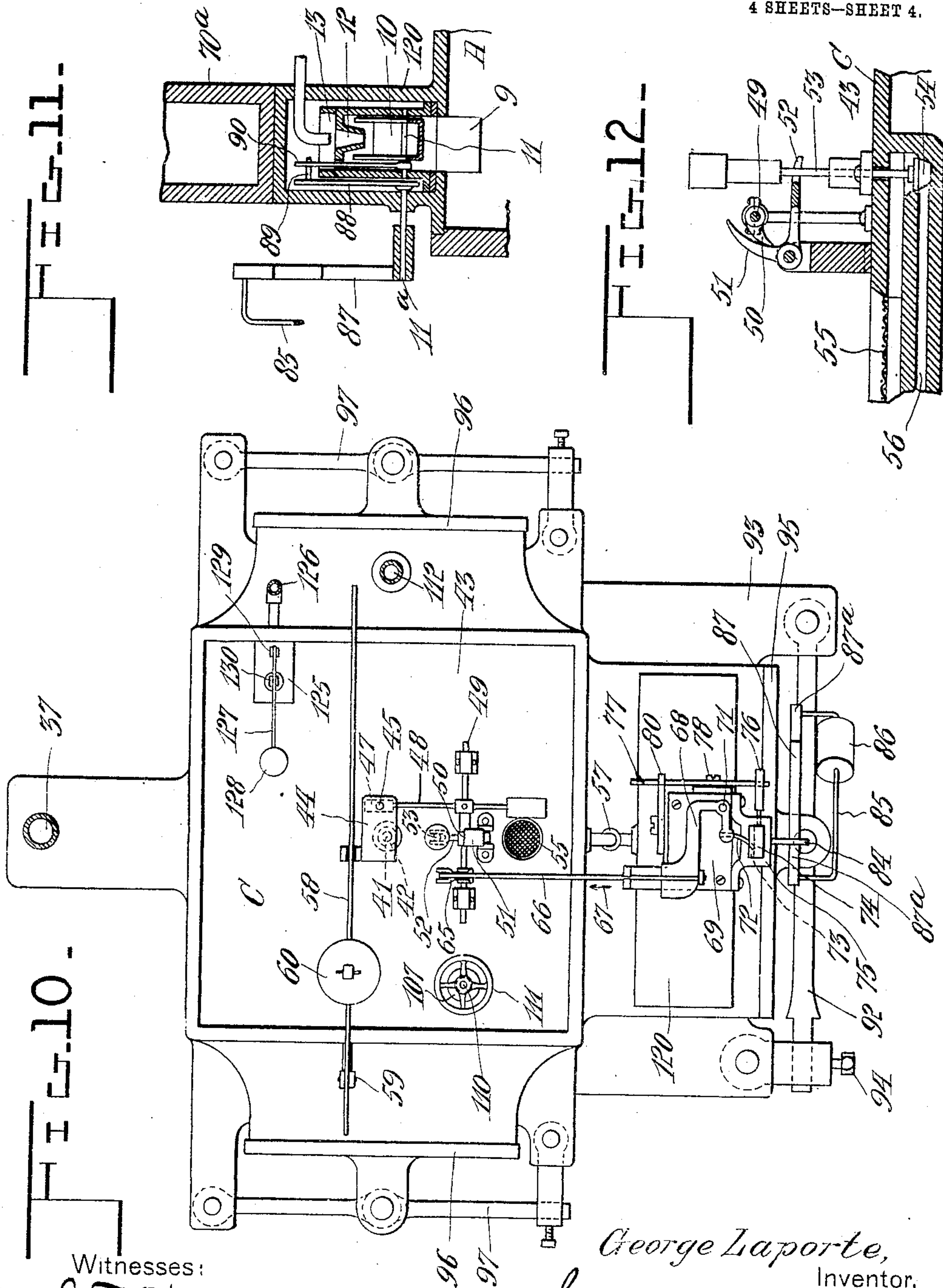
Attorneys

No. 842,962.

PATENTED FEB. 5, 1907.

G. LAPORTE.
ACETYLENE GAS GENERATOR.
APPLICATION FILED OCT. 23, 1905.

4 SHEETS—SHEET 4.



Witnesses:
John F. Deufferwald
F. H. Gibbs

George Laporte,
Inventor,
By *Marion & Marion*
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE LAPORTE, OF ST. FELIX DE VALOIS, QUEBEC, CANADA, ASSIGNOR
OF ONE-HALF TO J. H. CHEVALIER, OF CAMPBELL, NEBRASKA.

ACETYLENE-GAS GENERATOR.

No. 842,962.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed October 23, 1905. Serial No. 283,951.

To all whom it may concern:

Be it known that I, GEORGE LAPORTE, a subject of the King of Great Britain, residing at St. Felix de Valois, county of Joliette, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Acetylene-Generators; and I do hereby declare that the following is 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.

This invention relates to new and useful improvements in acetylene-gas generators, and comprises certain features of novelty in the detail construction and arrangement thereof, all as hereinafter more fully described, and specifically pointed out in the claims.

The object of the invention is to provide a simple, compact, and durable apparatus for generating and distributing acetylene gas, with suitable purifying-chambers therein, there being an intermediate pressure-supply regulating-chamber and a supplemental chamber for excess of gas generated and not consumed, from which gas may be drawn when the consumption exceeds the quantity of gas generated in the machine.

Referring to the accompanying drawings, in which similar numerals of reference indicate corresponding parts in all the views, Figure 1 is an elevational view of the generator in position for use. Fig. 2 is a view looking from the left of Fig. 1. Fig. 3 is a central vertical sectional view taken relatively on line 3 3 of Fig. 1 looking in the direction of the arrow. Fig. 4 is a central vertical sectional view taken on line 4 4 of Fig. 2. Fig. 5 is a horizontal sectional view taken on line 5 5 of Fig. 3. Fig. 6 is a similar view taken on line 6 6 of Fig. 3. Fig. 7 is a sectional view taken relatively on line 7 7 of Fig. 5. Fig. 8 is a perspective view of one of the carbide-receptacles. Fig. 9 is a fragmentary plan view showing the parts at the extreme left-hand portion of Fig. 3. Fig. 10 is a plan view of the machine. Fig. 11 is a vertical sectional view of the deflector-chamber hereinafter referred to, and Fig. 12 is a detached sectional detail view illustrating details of construction.

This apparatus is divided primarily into

five divisions, comprising, first, the carbide-containing chamber A, above which is mounted the gas purifying and receiving chamber B, above which is located the water-supply tank C, a supplemental gas-receiving chamber D being in communication with the chamber B and a surplus chamber E being also in communication with said chamber B, the chamber E being adapted to receive surplus gas which is generated in the machine and not consumed, so as to prevent passage of said gas to atmosphere and also to store it for emergencies when consumption exceeds production in the machine.

Referring first to the carbide-chamber, it will be noted that there are two carbide-receiving pans 1 2 in said chamber. These pans, as will be noted in Figs. 6 to 8, comprise, preferably, cast-iron receptacles, which are adapted to receive the carbide. Mounted on said receptacles are the covers 3, which covers comprise the water-pan portion 4, leading from which are the longitudinal troughs 5, which troughs extend substantially the entire length of said receptacles and are provided with perforations 6 therein to permit water to pass from the pan portion 4 along said troughs and drip onto the carbide in said receptacles, there being longitudinal openings 7 between said troughs to permit the escape of gas generated by water coming into contact with the carbide. In the carbide-chamber A there are two of these carbide-receptacles 1 and 2 and leading to the receptacles and approximately above the pan portions 4 thereof are spouts 8 and 9, while rockably mounted above the spouts 8 and 9 there is a deflector 10, which deflector is carried upon a rockable shaft 11, so that when said shaft 11 is rocked the deflector will be thrown so as to direct water from the discharge-opening 12 of the water-pan 13 to either carbide-receptacle 1 or 2, as may be desired. The means for rocking this pan 13 will be hereinafter particularly referred to.

Referring now to Figs. 3 and 5, it will be noted that leading from the chamber A there is a pipe or conduit 15, which conduit conducts the generated gas from the chamber A to the chamber 16. (Shown in Figs. 4 and 5.) The gas passes from the chamber 16 through a screen 17 and into and through the packing 18, which is designed to assist in the puri-

fication of the gas, after which the gas passes through the conduit 19, and from the conduit 19 through the packing 20 and screen 21 into the gas-receiving chamber 22. Leading from the chamber 22 is a pipe 23, which pipe terminates at its upper end in the bell 24, which bell is water-sealed, as is common in this class of machines. Floating on the water in the bell 24 is a float 25, which float carries the bridge 26, supported thereabove, and from the bridge 26 there is suspended the valve-rod 27, which valve-rod carries at its lower end the valve 28, which coöperates with the bell-mouth 29 of the pipe 23 to shut off the supply of gas from the bell 24 when the float 25 is raised by the water to the proper level. Supported by the float 25 and extending to a higher plane than the bridge 26 is a cross-bridge 30, which is adapted to be struck by the bell 24 when said bell falls because of the failure of supply of gas. It is evident that when gas is exhausted or nearly exhausted from the bell 24 such bell will fall by gravity, and the upper wall thereof will contact with the bridge 30 referred to, thereby forcing the float 25 downwardly and carrying the valve 28 below its seat 29, thereby opening passage from the chamber 22 to the interior of said bell. Supported by the ledges 31 in the chamber B are guide-tubes 32 open at their upper ends, and in these guide-tubes telescope the rods 33, which are connected either with the upper portion of the bell or with the transversely-extending plate 34, so that the bell is guided in its ascent and descent in said chamber B. To provide communication from the interior of the bell 24 to the passage 36, a pipe 35 is provided, which pipe is open at both ends to permit a ready passage of gas from the interior of the bell to the passage 36. Communicating with the passage 36 is a conduit 37, which leads to the supplemental receiving-chamber D, there being a tube 38 communicating with the conduit 37 and with the interior of a bell 24^a in said chamber D to carry the gas from the conduit 37 to the interior of said bell. This supplemental receiving-chamber D is provided with a bell 24^a, within which is arranged a float, as described, in the chamber B, said float carrying the two bridge portions 26^a and 30^a with a valve-stem 27^a and valve 28^a, substantially as heretofore described with reference to the same parts in the chamber B and operating in substantially the same manner. Leading from the interior of the chamber D above the water seal thereof is a service-pipe 40, which leads to the compartments in which the gas is to be consumed. Coöperating with the means hereinbefore described are auxiliary attachments for rendering the action of the parts more certain, details of which will be now described. Extending upwardly from the bell 24 is a rod 41, which rod passes through the tube 42 in the water-receiving chamber C, the tube 42 rising to a sufficient height above the bottom 43 of said water-chamber C to prevent the passage of water from said chamber through the pipe 42. Resting upon the upper end of the rod 41 is a laterally-extending member 44, which is rockably mounted and has depending from it the rod 45, which rod 45 carries upon its lower end the enlargement 46, which enlargement bears against the flattened extension 47 of the rockable rod 48. This rockable rod 48 is mounted upon the shaft 49, which shaft has rigidly connected with it the finger 50, which when it is rocked is adapted to impinge the bell-crank 51, the lower bifurcated arm 52 of which passes at each side of the valve-spindle 53, on the lower end of which is the valve 54, so that when the bell 24 falls the said valve 54 will be unseated to permit water to pass from the chamber C through the strainer 55 to the passage 56 beyond the valve 54 and thence through the water-pipe 57 to the pan 13 before referred to. Bearing against the member 44 is an approximately U-shaped weight-carrying rod 58, which is pivotally mounted in the bracket 59 and has adjustably secured thereupon the weight 60, which may be shifted relatively nearer to or farther away from the pivotal point 59, and it is evident that the weight 60, bearing against the member 44, and the rod 41, being impinged by said member 44, will tend to force the bell 24 downwardly and expel the gas therein contained through its regular channel. When the shaft 49 is rocked as just described, it will swing the link 65 and rod 66 in the direction indicated by the arrow 67 in Fig. 3. Connected with the rod 66 is a pivoted arm 68, which is pivotally mounted upon the plate 69, which plate is carried by the standard 70. Extending beyond the pivot-point 71 of the arm 68 is a tongue 72, which tongue is adapted to enter a channel 73 in the gravity-strip 74. This gravity-strip is locked in its uppermost position by means of the tongue 72, engaging the channel 73 in the inner face thereof, and not otherwise, so that when the tongue 72 is withdrawn through rocking of the arm 68 by means of the link 65 and rod 66 it is evident that the gravity-slide 74 will drop through the guides 75, which project laterally from the standard 70. Projecting laterally from the gravity-strip 74 is a finger 76, which is adapted to contact with the rockable contact-carrying arm 77, which arm is pivoted at 78 to the standard 70. This arm 77 is of metal and serves as a terminus for the battery-circuit 79. Coöperating with the contact-arm 77 is a terminal-plate 80, which is in circuit with the line 81, leading to the bell 82, and thence to the battery 83, so that when the bell 24 drops sufficiently to rock the finger 50 into contact with the bell-crank 51 and release the tongue 72 an alarm

will be sounded, preferably in a part of the building removed from the generator, so as to indicate to the occupants of the building that it is time to provide a new supply of carbide to take the place of the carbide in one of the pans 1 or 2, which may be exhausted. There is a second finger projecting laterally and relatively forwardly from the gravity-slide 74 which finger 84 is adapted to contact with the surfaces 87^a of the yoke 87, which, as shown in Figs. 1 and 2, carries the weight 86 thereupon. It will be observed that the rod 85 is carried by the rockable yoke 87, which yoke 87 is mounted upon the shaft 11^a in alinement with the shaft 11, before referred to. Upon the opposite and inner end of the shaft 11^a there is mounted a bifurcated yoke 88, which yoke has resting between the bifurcated upper ends thereof the forward end of the pin 89, which pin projects from the stem 90, which stem 90 is rigidly mounted upon the shaft 11, which shaft carries the deflector 10 before referred to, so that as the gravity-slide 74 falls the yoke 87 will be rocked upon its supporting-shaft, thereby swinging the deflector 10, so that the supply of water to the carbide will be directed to the next adjacent carbide-receptacle and a fresh supply of gas be produced thereby. As the alarm is necessarily sounded when the gravity-slide 74 descends, it is evident that the attendant will be promptly notified when it is necessary to supply carbide to the machine.

The carbide-chamber is locked by means of the arm 92, which is pivotally mounted in the lugs 93, as shown in Figs. 1 and 2, and has connected at its opposite end the set-screw 94 for locking it in position against the door 95 of said carbide-chamber. The stuffing-boxes within the purifying portion of the chambers 16 and 22 are accessible through doors 96, which are locked in position by the clamps 97, and it is evident that access may be had to the interior of the machine when desired for cleaning or the renewal of parts. To facilitate this, the chamber B is mounted upon the carbide-chamber A (each of said chambers being a separate casting) by means of flanges 97^a, through which are projected locking-bolts 98. The bell 24^a in the supplemental chamber D is depressed normally by means of the weight 100, which weight is carried upon the U-shaped rod 101, which is pivoted at 102, there being a guide-tube 103 extending upwardly from the bell 24^a, in which tube passes the guide-rod 104, having the right-angular extension 105, which is held in position by means of the standard 106, mounted upon said chamber D.

To provide a supply of water in the chamber B and at the same time prevent the escape of gas from said chamber B, a tube 107 leads from the interior of the chamber B to the water-chamber C. This tube has an

opening 108 near the lower end thereof, and a valve 109, carried by the valve-rod 110, serves to cut off communication between the chambers B and C, a hand-wheel 111 being provided for manipulating the valve 109, as may be desired.

Cooperating with the devices hereinbefore described there is a supplemental bell E, provided for receiving any excess of gas generated in the machine, there being a supply-pipe 112 leading from the chamber 22 to the interior of the bell 113 in said supplemental receptacle, a water seal being provided for said bell to prevent the escape of gas to atmosphere, and it is evident that except for the feed of the carbide the entire operation of the machine is automatic to such an extent that gas may be generated, purified, stored in the primary bell 24, and conducted from thence to the supplemental bell 24^a and to the service-pipe 40; but if all of the gas generated is not used any surplus will be conducted, by means of the pipe 112, to the supplemental bell 113, in which it may be stored until such time, as through the ordinary operation of the machine, a supply of gas produced from the carbide will be less than the amount of consumption, at which time service-supply will be drawn from the bell 113 until such time as the gas therein becomes exhausted or a new supply of carbide is provided and maximum generation is resumed.

It will be noted that the mechanism shown in Fig. 7 comprising the deflector 10 and pan 13, with the parts described for rocking said deflector, are inclosed within the deflector-chamber 120, (best shown in Fig. 3,) which deflector-chamber has no openings to atmosphere except the opening through which the water-conduit 57 passes and that through which the shaft 11^a is passed, and both of said openings are preferably sealed in such manner as to prevent the escape of gas from said deflector-chamber to atmosphere.

The standard 70 referred to is preferably mounted above the deflector-chamber, as shown in Fig. 3, in the socket 70^a, secured to said deflector-chamber or cast integral therewith, as may be desired, whereby said standard is rigidly supported in position for service.

At 125 is shown a valve-casing to which leads the water-main 126, from which water is taken for use in the machine, and cooperating with this main and valve-casing is an ordinary float-operated valve, which may be of any construction, there being a float-arm 127, carrying a float 128, which is pivotally mounted in the bracket 129 above the valve-casing, and a valve-stem 130, connecting the float-arm and the valve in said valve-casing.

While I have shown in the accompanying drawings the preferred form of my invention, it will be understood that I do not limit myself to the precise form shown, for many of the details may be changed in form or position.

tion without affecting the operativeness or utility of my invention, and I therefore reserve the right to make all such modifications as are included within the scope of the following claims or of mechanical equivalents to the structures set forth.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

10 1. In an acetylene-generator, a carbide-chamber, a plurality of carbide-receptacles therein, means for distributing water-supply over and to said carbide, a water-receiving pan in a higher plane than said carbide-receptacles, a plurality of spouts leading from said pan, and a rockable deflector interposed between said pan and said spouts.

20 2. In an acetylene-generator, a carbide-chamber, a plurality of carbide-receptacles therein, means for distributing water-supply over and to said carbide, a water-receiving pan in a higher plane than said carbide-receptacles, a plurality of spouts leading from said pan, a rockable deflector interposed between said pan and said spouts, and gravity-operated means for rocking said deflector.

30 3. In an acetylene-generator, a carbide-chamber, a plurality of carbide-receptacles therein, means for distributing water-supply over and to said carbide, a water-receiving pan in a higher plane than said carbide-receptacles, a plurality of spouts leading from said pan, a rockable deflector between said pan and said spouts, a shaft on which said deflector is mounted, a rod rigidly connected with said shaft, a second shaft in substantial alignment with said first-mentioned shaft, a bifurcated member engaging said rod, and a rockable yoke on said second shaft, and gravity-operated means for rocking said yoke and said deflector.

40 4. In an acetylene-generator, a carbide-chamber, a plurality of carbide-receptacles therein, means for distributing water-supply over and to said carbide, a water-receiving pan in a higher plane than said carbide-receptacles, a plurality of spouts leading from said pan, a rockable deflector between said pan and said spouts, a shaft on which said deflector is mounted, a rod rigidly connected with said shaft, a second shaft in substantial alignment with said first-mentioned shaft, a bifurcated member engaging said rod, and a rockable yoke on said second shaft, a rod carried by said yoke, a weight slidable on said rod, and gravity-operated means adapted to impinge said yoke and thereby rock said deflector.

50 5. In an acetylene-generator, a carbide-chamber, a plurality of carbide-receptacles therein, means for distributing water-supply over and to said carbide, a water-receiving pan in a higher plane than said carbide-receptacles, a plurality of spouts leading from said pan, a rockable deflector between said spouts

and said pan, a gravity-operated slide, a source of electrical energy, an alarm normally out of circuit, a rockable circuit-closing member, means on said slide adapted to rock said circuit-closing member, and means actuated by said slide for rocking said deflector.

60 6. In an acetylene-generator, a carbide-chamber, a plurality of carbide-receptacles therein, means for distributing water-supply over and to said carbide, a water-receiving pan in a higher plane than said carbide-receptacles, a plurality of spouts leading from said pan, a rockable deflector between said spouts and said pan, a single source of water-supply, a conduit between said supply and said pan, a gravity-valve between said supply and said conduit, gravity-operated means for raising said valve to open a passage from supply to said conduit, a gravity-slide, and means operated thereby for rocking said deflector.

70 7. In an acetylene-generator, a carbide-chamber, a plurality of carbide-receptacles therein, means for distributing water-supply over and to said carbide, a water-receiving pan in a higher plane than said carbide-receptacles, a plurality of spouts leading from said pan, a rockable deflector between said spouts and said pan, a single source of water-supply, a conduit between said supply and said pan, a gravity-valve between said supply and said conduit, gravity-operated means for raising said valve to open a passage from supply to said conduit, an electrically-actuated alarm normally out of circuit, means for rocking said deflector, and a gravity-operated slide adapted to close circuit to said alarm and to actuate the deflector-rocking means.

80 8. In an acetylene-generator, a carbide-chamber, a plurality of carbide-receptacles therein, a source of water-supply, a conduit leading therefrom, gravity-operated means for directing water from said conduit to different carbide-receptacles, a gas-receiving chamber, a water-sealed bell in a higher plane than said chamber, filtering means interposed between said chamber and said bell, a second gas-chamber, a tube establishing communication between said bell and said second chamber, a float in convenient juxtaposition to the upper part of said tube, a valve-stem and valve normally sustained by said float, and a member extending above said float in position to contact with said bell when in a lowered position.

90 9. In an acetylene-generator, a carbide-chamber, a plurality of carbide-receptacles therein, a source of water-supply, a conduit leading therefrom, gravity-operated means for directing water from said conduit to different carbide-receptacles, a plurality of gas-receiving chambers, a passage establishing communication between said chambers, filtering means between each chamber and said

passage, a water-sealed bell in a higher plane than said chambers, a tube leading from one gas-chamber to the interior of said bell, a float in said bell, a valve sustained thereby in said tube, and means for operating said valve when said bell is in a lowered position.

10. In an acetylene-generator, a carbide-containing chamber, a plurality of carbide-receptacles therein, a gas purifying and receiving chamber comprising a plurality of compartments, a passage connecting said compartments, filtering means interposed between said compartments and said passage, a bell-chamber in a higher plane than said filtering means, a water-sealed bell in said bell-chamber, a tube leading from one of the gas-receiving chambers to the interior of said bell, a float in convenient proximity to the upper end of said tube, a valve-stem, a valve sustained by said float, a bridge projecting to a higher plane than said float and adapted to contact with the inner upper face of said bell when the bell is in a lowered position, a water-tank above said bell-chamber, a conduit leading from said water-tank to said carbide-containing chamber, a deflector below the lower end of said conduit and between said conduit and said carbide-containing chamber, and gravity-operated means for rocking said deflector when said bell moves to a relatively low plane within said bell-chamber.

11. In an acetylene-generator, a carbide-containing chamber, a gas purifying and receiving chamber comprising a plurality of compartments with a passage establishing communication between said compartments, filtering means interposed between said compartments and said passage, a bell-chamber in a higher plane than said gas-receiving chamber, a water-sealed bell in said bell-chamber, a tube establishing communication between said receiving-chamber and said bell, a float in said bell, a valve-stem, a valve normally sustained by said float, a member extending to a higher plane than said float and adapted to contact with the upper wall of said bell when said bell is in a lowered position, a water-supply tank, a conduit leading from said supply-tank to said carbide-containing chamber, a valve between said tank and said conduit, and gravity-operated means for opening said valve when said bell is in a relatively low position.

12. In an acetylene-generator, a carbide-containing chamber, a gas purifying and receiving chamber, a bell-chamber, a water-sealed bell in said bell-chamber, a water-supply tank, a conduit leading from said supply-tank to said carbide-containing chamber, a valve interposed between said conduit and said tank, means for deflecting water from said conduit to different parts of said carbide-containing chamber, a gravity-slide adapted to operate said last-mentioned means, and

means connected with said bell for actuating the valve between the water-supply tank and said conduit and simultaneously releasing said gravity-slide.

13. In an acetylene-generator, a carbide-containing chamber, a gas purifying and receiving chamber comprising a plurality of compartments, there being a passage connecting said compartments, filtering means interposed between said compartments and said passage, a bell-chamber, a water-sealed bell in said bell-chamber, a tube connecting the interior of said bell with one of said compartments, a float in convenient proximity to the upper portion of said tube, a valve, a valve-operating means sustained by said float in normally closed position, a member extending above said float adapted to contact with said bell when the bell is in a lowered position, a water-supply tank, a conduit leading therefrom to said carbide-containing chamber, means for deflecting water from said conduit to different parts of said carbide-containing chamber, a gravity-slide, means cooperating with said slide for rocking said deflector, means for locking said slide in a normally elevated position, and means for releasing said slide when said bell is in a lowered position.

14. In an acetylene-generator, a carbide-containing chamber, a gas receiving and purifying chamber comprising a plurality of compartments, there being a passage establishing communication between said compartments, a tube leading from said carbide-containing chamber to one of said compartments, filtering means interposed between said passage and said compartments, a bell-chamber in a higher plane than said gas-purifying chamber, a water-sealed bell in said bell-chamber, means for supplying water to different parts of said carbide-containing chamber, a supplemental receiving-chamber, a water-sealed bell in said supplemental chamber, and a second supplemental bell cooperating therewith, said second supplemental bell being in communication with one of the compartments in said gas-receiving chamber.

15. In an acetylene-generator, a carbide-containing chamber, a gas purifying and receiving chamber comprising a plurality of compartments, there being a passage establishing communication between said compartments, filtering means between each of said compartments and said passage, a conduit leading from said carbide-containing chamber to one of said compartments, a bell-chamber, a water-sealed bell therein, a tube leading from the interior of said bell to the other compartment in said receiving-chamber, means for supplying water to different parts of said carbide-containing chamber, a supplemental receiving-chamber, a water-sealed bell therein, a conduit leading from

said supplemental chamber to the first-mentioned bell, and a service-pipe leading from the second bell.

16. In an acetylene-generator, a carbide-containing chamber, a gas purifying and receiving chamber comprising a plurality of compartments, a passage establishing communication between said compartments, filtering means between said compartments and said passage, a conduit leading from the carbide-containing chamber to one of said compartments, a conduit leading from the other of said compartments upwardly, a bell inclosing the upper portion of said last-mentioned conduit, a water-supply tank, a conduit leading from said supply-tank, a deflector-chamber into which the lower end of said conduit is directed, a deflector in said chamber adapted to direct water to different parts of said carbide-containing chamber, means for rocking said deflector, a gravity-operated slide, locking means adapted to hold said slide in a normally elevated position, and means connected with said bell for releasing said slide.

17. In an acetylene-generator, a carbide-containing chamber, a gas purifying and receiving chamber comprising a plurality of communicating compartments, filtering means interposed between said compartments, a conduit leading from said carbide-containing chamber to one of said compartments, a conduit leading from the other of said compartments, a bell-chamber, a water-sealed bell therein surrounding the upper end of said last-mentioned conduit, a float, a valve-stem, a valve normally sustained by said float, means projecting to a higher plane than said float adapted to contact with said bell when in a lowered position, a water-sup-

ply tank, a conduit leading therefrom, a deflector-chamber, to which the lower end of said water-conduit leads, a rockable deflector in said deflector-chamber, a rockable yoke adapted to actuate said deflector, a standard, a gravity-operated slide guided upon said standard, means for locking said gravity-slide in a normally elevated position, means projecting from said slide adapted to rock said yoke, and means for releasing said slide when said bell is in a relatively lowered position.

18. In an acetylene-generator, a carbide-containing chamber, a plurality of carbide-receptacles therein, a rockable deflector adapted to direct water to either of said receptacles, a conduit leading from a higher plane than said deflector to a water-tank, a water-tank, a valve between said tank and said water-conduit, a gravity-operated slide, means adapted to be actuated thereby for rocking said deflector, a bell-chamber, a water-sealed bell therein, and means connected with said bell for releasing said gravity-operated slide.

19. In an acetylene-generator, a carbide-containing chamber, two carbide-receiving pans therein, a receiving-chamber, a connection between the carbide-chamber and the receiving-chamber, a water-supply tank, a water-deflector, a gravity device automatically released for changing the position of said deflector, and an alarm adapted to be actuated thereby simultaneously.

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

GEORGE LAPORTE.

Witnesses:

J. H. CHEVALIER,
J. B. LAPORTE.