

No. 753,632.

PATENTED MAR. 1, 1904.

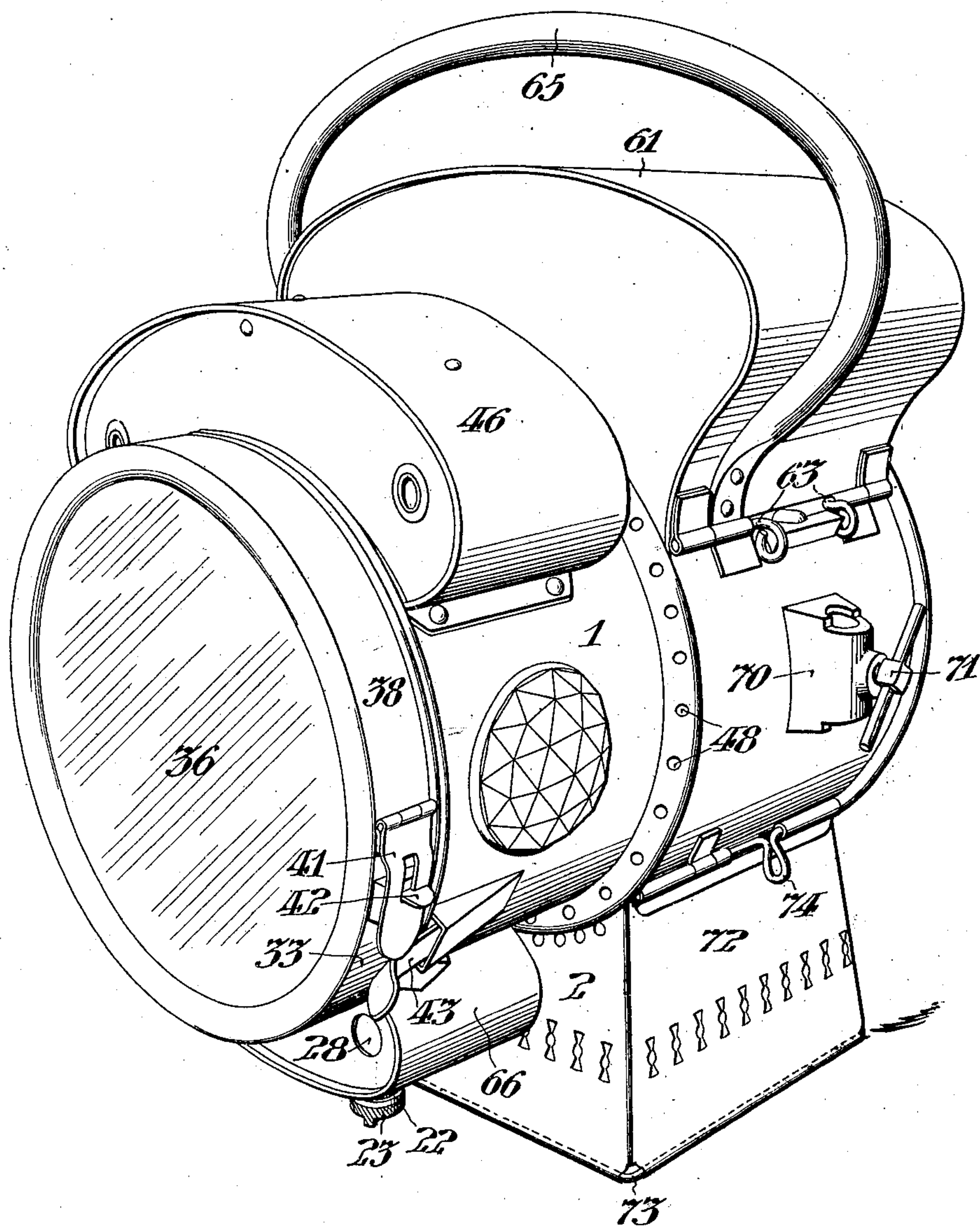
E. M. ROSENBLUTH.
ACETYLENE GAS GENERATOR.

APPLICATION FILED JUNE 19, 1902.

NO MODEL.

3 SHEETS—SHEET 1.

FIG. 1.



WITNESSES:

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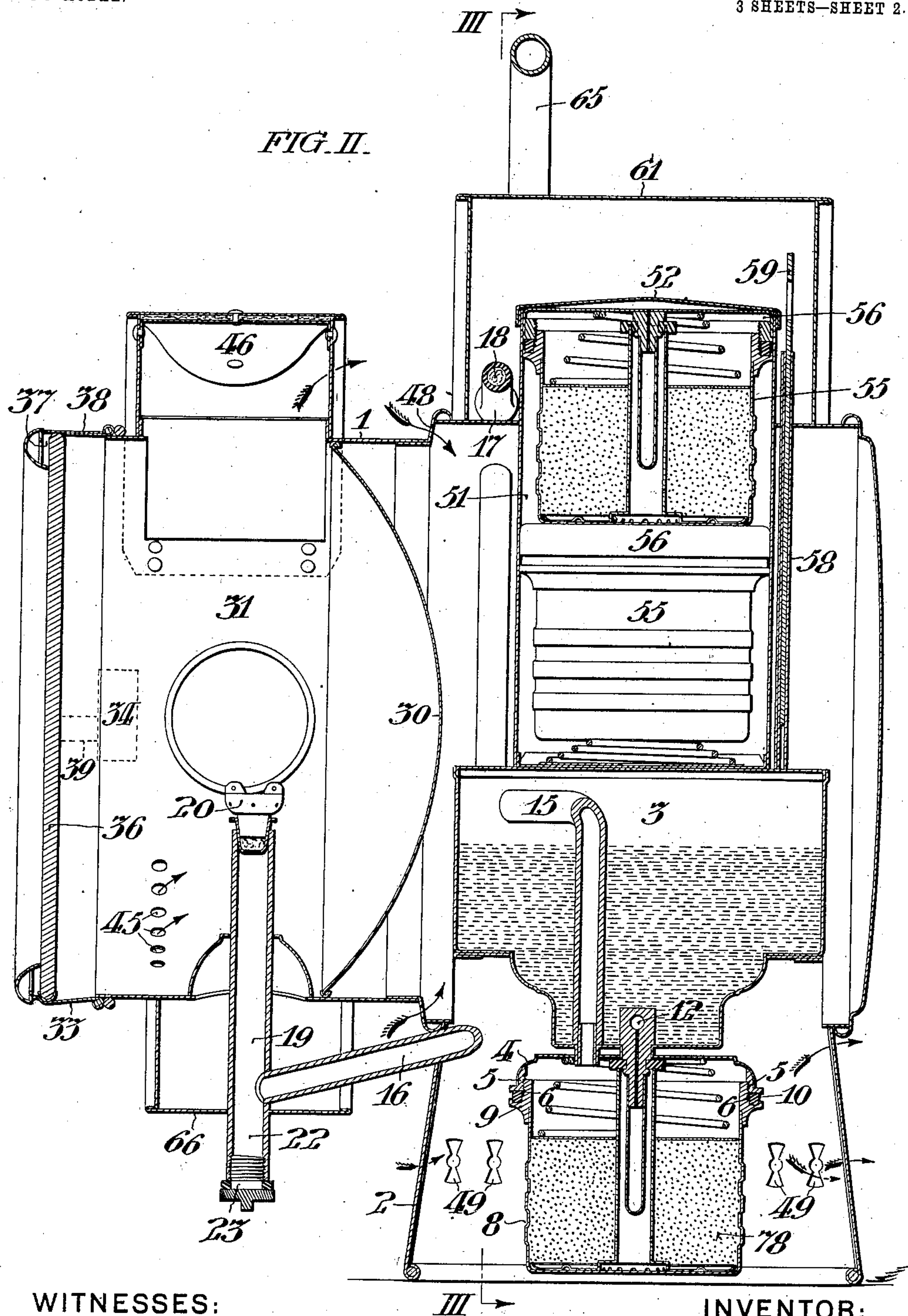
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3 SHEETS—SHEET 2.



WITNESSES:

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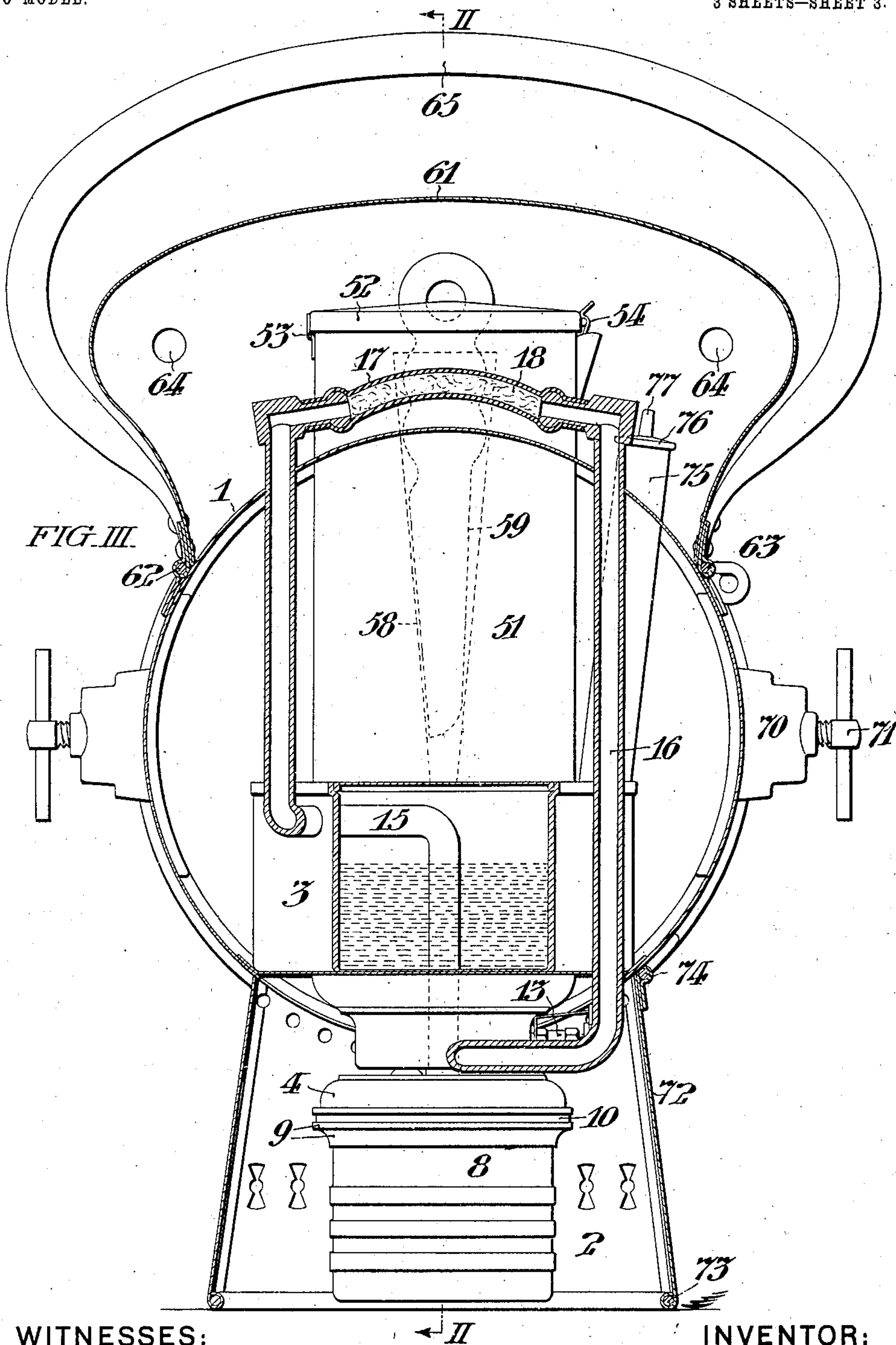
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3 SHEETS—SHEET 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWIN M. ROSENBLUTH, OF PHILADELPHIA, PENNSYLVANIA.

ACETYLENE-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 753,632, dated March 1, 1904.

Application filed June 19, 1902. Serial No. 112,287. (No model.)

To all whom it may concern:

Be it known that I, EDWIN M. ROSENBLUTH, of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Acetylene-Gas-Generating Lamps, whereof the following is a specification, reference being had to the accompanying drawings.

My invention relates to generators of the general class wherein the supply of water gravitates to the supply of carbid, and my improvements may be employed with particular advantage in lamps and similar portable generators.

It is an object of my invention to provide a magazine-lamp whose casing supports a plurality of separately-removable carbid-receptacles which may be interchangeably connected in operative relation with a water-receptacle and a burner, which latter are mounted in said casing.

My invention comprehends the various novel features of construction and arrangement hereinafter more definitely specified and claimed.

In the accompanying drawings, Figure I is a perspective view of a vehicle-lamp conveniently embodying my invention. Fig. II is a longitudinal sectional view of said lamp, taken on the line II II in Fig. III. Fig. III is a transverse sectional view of said lamp, taken on the line III III in Fig. II.

The lamp shown in said figures comprises the casing whose cylindriform body 1 is supported by the vertical standard 2. The water-receptacle 3 is mounted in stationary position within said casing-body 1 in registry with said standard 2, and the bottom of said water-receptacle 3 is provided with the cap 4, whose screw-thread 5 is fitted to the corresponding screw-thread 6 upon the carbid-receptacle 8. Said carbid-receptacle being provided with the flange 9 and gasket 10 may be removably sealed in operative relation with said cap 4. The water-conduit 12 opens from said water-receptacle 3 through the cap 4 into the carbid-receptacle connected therewith and is provided with the controlling-valve 13. The stationary section of the gas-conduit 15 extends from the top of said cap 4

through the water-receptacle 3 and terminates above the top of the casing 1, where it is opposed by the stationary conduit-section 16 and is connected therewith by the removable flexible section 17, which contains the filtering medium 18. The lower extremity of said gas-conduit section 16 projects through the side of the standard 2, as shown in Fig. II, and terminates in the vertical member 19, which is provided at its top with the burner 20, within the casing 1, in front of the water-receptacle 3, and said gas-conduit is provided between said standard 2 and the burner 20 with the drip-outlet 22, normally closed by the removable screw-plug 23.

The diaphragm 30 extends across the casing-body 1, forming a flame-chamber 31, inclosing the burner 20 and separating the latter from the water-receptacle 3. The concave surface of said diaphragm being polished it serves as a reflector behind the burner 20.

The casing 1 is provided at its front extremity with the door 33, which is hinged at 34 and provided with the transparent panel or lens 36, which may be removed and replaced through the opening 37 in the top of the door, which opening is normally closed by the semicircular band 38, hinged at 39 upon the door and provided at its free extremity with the hinged hasp 41, which is engaged by the turn-button 42, as best shown in Fig. I. Said door is normally retained in closed position by the spring-catch 43, mounted upon the casing 1.

As shown in Fig. II, the casing 1 is provided with air-inlets 45 in the bottom of the flame-chamber 31 and the chimney 46, at the top thereof. Said casing is also provided with a series of air-inlets 48 behind the diaphragm 30 and between the latter and the water-receptacle 3 and air-vents 49, adjoining the carbid-receptacle 8, and conveniently located in the sides of the standard 2.

On the top of the water-receptacle 3 is mounted the magazine 51, which opens through the top of the casing 1 and is conveniently provided with the lid 52, which is hinged to the magazine at 53 and provided with the fastening device 54. Said magazine is arranged to hold a plurality of separate carbid-recepta-

cles 55, which are adapted to be interchangeably connected with the screw-cap 4 upon the bottom of the water-receptacle 3, but are normally closed by respective screw-caps 56.

5 Adjoining the magazine 51 is the tubular sheath 58, which rigidly connects and braces the water-receptacle 3 in said casing 1. Said sheath removably supports the implement 59, which may be conveniently utilized to clean
10 the carbid-ash from the receptacles 8 and 55.

The magazine 51, gas-filter, and the cleaning implement adjoining the same are conveniently inclosed by the hood 61, which is hinged upon the lamp-casing at 62 and provided with the fastening device comprising the slide-bolts 63. The rear wall of said hood
15 61 is provided with vents 64, so that air is permitted to circulate therein. The handle 65, which is fixed upon said hood 61, serves
20 as a convenient means for manipulating the lamp.

Said gas-conduit 19 is surrounded by the wind-shield 66, which supports it in rigid relation with the casing 1, and the front of said
25 wind-shield is perforated at 28 and the back thereof is open, surrounding the gas-conduit 16, as indicated in Fig. II, to permit free circulation of air.

The lamp-casing is provided upon its opposite sides with the sockets 70 and set-screws 71 to conveniently engage a supporting-bracket.

The casing-standard 2 comprises the door 72, which is hinged at its bottom upon the wire frame 73 and provided at its top with the fastening device comprising the slide-bolt 74. Said
35 door 72 affords convenient access to the carbid-receptacle, which is in operative connection with the water-receptacle 3 and permits the manipulation of the valve 13, controlling
40 the water-supply, which latter is conveniently introduced to the receptacle 3 through the tube 75, normally closed by the cap 76, provided with the vent 77.

It is to be understood that the carbid-receptacle 8, containing the charge of carbid 78, being in operative connection with the water-receptacle 3 and the burner 20, said charge may be consumed by the admission of water through the valve 13, and thereupon one of
50 these separate carbid-receptacles upon the magazine may be substituted for the receptacle 8, and so on, until all of the carbid-receptacles supported by the lamp structure are successively utilized in interchangeable operative
55 connection with said water-receptacle 3 and burner 20. The filtering medium 18 within the removable section 17 of the gas-conduit serves to retain objectionable matter carried by the gas, and any condensation from the
60 latter gravitates to the drip-outlet 22 and may be conveniently discharged therefrom. Said removable section 17 is conveniently formed of a cut length of flexible rubber tubing and may be withdrawn and recharged with filtering material 18 when desired. It is to be

noted that the arrangement is such that if the gas generated should accidentally accumulate within the lamp at an abnormal pressure such pressure would suffice to detach said removable section 17 instead of rupturing any other
70 portion of the lamp structure.

It is to be understood that I do not desire to limit myself to the precise details of construction and arrangement herein set forth, as it is obvious that various modifications may be
75 made therein without departing from the essential features of my invention.

I claim—

1. In an acetylene-gas-generating lamp, the combination with a casing comprising a flame-chamber inclosing a burner; of a water-receptacle supported by said casing; and, a plurality of separate carbid-containing receptacles removably supported by said casing respectively above and below said water-receptacle, substantially as set forth. 85

2. In an acetylene-gas-generating lamp, the combination with a casing comprising a flame-chamber inclosing a burner; of a water-receptacle supported by said casing; and, a plurality
90 of separate interchangeable carbid-containing receptacles removably supported by said casing above and below said water-receptacle; each of said carbid-receptacles being adapted to be brought into communication with said
95 burner and said water-receptacle, substantially as set forth.

3. In an acetylene-gas-generating lamp, the combination with a casing comprising a flame-chamber inclosing a burner; of a water-receptacle supported by said casing; a cap upon the bottom of said water-receptacle arranged to removably engage a carbid-receptacle; a water-conduit opening through said cap; a gas-conduit extending from said cap to said
100 burner; a carbid-receptacle removably connected with said cap; a magazine fixed in said casing above said water-chamber and behind said flame-chamber; and, a separate carbid-receptacle, removably supported by said magazine and adapted to interchangeably connect with said cap, substantially as set forth. 110

4. In an acetylene-gas-generating lamp, the combination with a casing comprising a horizontal cylindrical body and a vertical standard supporting the same; of a burner mounted in said casing in front of said standard; a reflecting-diaphragm extending across said body behind said burner; a water-receptacle mounted in said casing behind said diaphragm;
115 a cap upon the bottom of said water-receptacle arranged to removably engage a carbid-receptacle; a carbid-receptacle removably connected with said cap; a water-conduit opening through said cap; a gas-conduit extending
120 from said cap to said burner and comprising a removable section intermediate of two stationary sections; a filtering medium in said removable section; a carbid-magazine mounted upon said water-receptacle and opening 130

through said casing-body; a separate carbid-receptacle supported in said magazine and arranged to interchangeably connect with said cap, substantially as set forth.

5 5. In an acetylene-gas-generating lamp, the combination with a casing comprising a horizontal body and a vertical standard supporting the same; of a diaphragm extending across said body in front of said standard; a burner
10 mounted in said casing in front of said diaphragm; a water-receptacle mounted in said casing behind said diaphragm; a cap upon the bottom of said water-receptacle, arranged to removably engage a carbid-receptacle; a carbid-receptacle removably connected with said
15 cap; a water-conduit opening through said cap; a gas-conduit extending from said cap to said burner, and comprising a removable section intermediate of two stationary sections; and
20 a filtering medium in said removable section, substantially as set forth.

6. In an acetylene-gas-generating lamp, the combination with a casing comprising a horizontal body and a vertical standard supporting the same; of a diaphragm extending across
25 said body in front of said standard; a burner mounted in said casing in front of said diaphragm; a water-receptacle mounted in said casing behind said diaphragm; a cap upon the bottom of said water-receptacle, arranged to
30 removably engage a carbid-receptacle; a carbid-receptacle removably connected with said cap; a water-conduit opening through said cap; and, a gas-conduit leading from said cap through said water-receptacle, extending in a
35 section above said casing, and returning to said burner through said casing, substantially as set forth.

7. In an acetylene-gas-generating lamp, the combination with a casing provided with a flame-chamber inclosing a burner; of a water-receptacle mounted in said casing; a carbid-receptacle operatively connected with said
40 burner and said water-receptacle; a carbid-magazine fixed in said casing above said water-receptacle; an air-inlet in said casing between said burner and said carbid-magazine; and, an air-outlet in said casing adjoining said carbid-receptacle, in communication with said
50 inlet, substantially as set forth.

8. In an acetylene-gas-generating lamp, the combination with a casing comprising a horizontal cylindrical body and a vertical standard supporting the same; of a water-receptacle
55 mounted in said casing in registry with said standard; a burner mounted in said casing in front of said standard; a diaphragm extending across said casing between said water-receptacle and said burner; a carbid-receptacle
60 in said standard operatively connected with said burner and said water-receptacle; a plurality of air-inlets in said casing behind said diaphragm and in front of said water-receptacle; a plurality of air-outlets in said stand-

ard adjoining said carbid-receptacle, in communication with said inlets, substantially as set forth. 65

9. In an acetylene-gas-generating lamp, the combination with a casing comprising a horizontal body and a vertical standard supporting the same; of a water-receptacle mounted
70 in said body in registry with said standard; a burner mounted in said casing in front of said water-receptacle; a carbid-receptacle in said standard, removably connected with said water-receptacle; a gas-conduit extending from said carbid-receptacle through said standard, exterior to said casing, and through the latter to said burner; and, a drip-outlet
75 in said gas-conduit intermediate of said burner and said casing, substantially as set forth. 80

10. In an acetylene-gas-generating lamp, the combination with a water-receptacle; of a carbid-receptacle operatively connected with said water-receptacle; a burner; a gas-conduit extending from said carbid-receptacle to said
85 burners; a filtering medium in said gas-conduit between said carbid-receptacle and said burner; and, a drip-outlet in said gas-conduit between said carbid-receptacle and said burner, substantially as set forth. 90

11. In an acetylene-gas generator, the combination with a water-receptacle; of a carbid-receptacle operatively connected with said water-receptacle; a gas-conduit extending from said carbid-receptacle, comprising a removable section between two stationary sections; and, a filtering medium in said removable section, substantially as set forth. 95

12. In an acetylene-gas generator, the combination with a water-receptacle; of a carbid-receptacle operatively connected with said water-receptacle; a gas-conduit extending from said carbid-receptacle, comprising a removable flexible section intermediate of two stationary sections; and, a filtering medium in said removable section, substantially as set forth. 100

13. In an acetylene-gas-generating lamp, the combination with a casing comprising a horizontal body and a vertical standard supporting the same; of a burner mounted in said casing in front of said standard; a diaphragm extending across said body behind said burner; a water-receptacle mounted in said casing behind said diaphragm; a cap upon the bottom of said water-receptacle arranged to removably engage a carbid-receptacle; a carbid-receptacle removably connected with said cap; a water-conduit opening through said cap; a gas-conduit extending from said cap to said burner; a carbid-magazine mounted in said casing and opening through the top thereof; a separate carbid-receptacle supported in said magazine and arranged to interchangeably connect with said cap; a hood hinged upon said casing and covering said magazine; a fastening device for said hood; a door in said standard giving 110
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access to said connected carbid-receptacle; a fastening device for said door; a door in said casing in front of said burner; and a fastening device for said door, substantially as set forth.

- 5 14. In an acetylene-gas-generating lamp, the combination with a casing comprising a horizontal body and a vertical standard supporting the same; of a water-receptacle mounted in said casing; a burner mounted in said casing;
10 a carbid-receptacle in operative connection with said water-receptacle and said burner; a diaphragm extending across said casing between said burner and said water-receptacle, forming a flame-chamber inclosing said
15 burner; a chimney-outlet at the top of said flame-chamber; air-inlets in said flame-chamber in front of said diaphragm, in communication with said chimney; air-inlets in said casing behind said diaphragm; and, air-outlets from
20 said casing, behind said carbid-receptacle, in

communication with said air-inlets, substantially as set forth.

15. In an acetylene-gas-generating lamp, the combination with a casing comprising a horizontal body and a vertical standard supporting the same; of a water-receptacle mounted in said casing; a burner mounted in said casing; a carbid-receptacle removably connected with said water-receptacle and said burner; and, a cleaning-implement sheath, arranged as a
30 brace connecting the water-receptacle and said casing, substantially as set forth.

In testimony whereof I have hereunto signed my name at Philadelphia, Pennsylvania, this 18th day of June, 1902.

EDWIN M. ROSENBLUTH

Witnesses:

ARTHUR E. PAIGE,
E. L. FULLERTON.