

No. 864,688.

PATENTED AUG. 27, 1907.

A. RECTOR.  
INCANDESCENT GAS LAMP.  
APPLICATION FILED JULY 11, 1906.

2 SHEETS—SHEET 1.

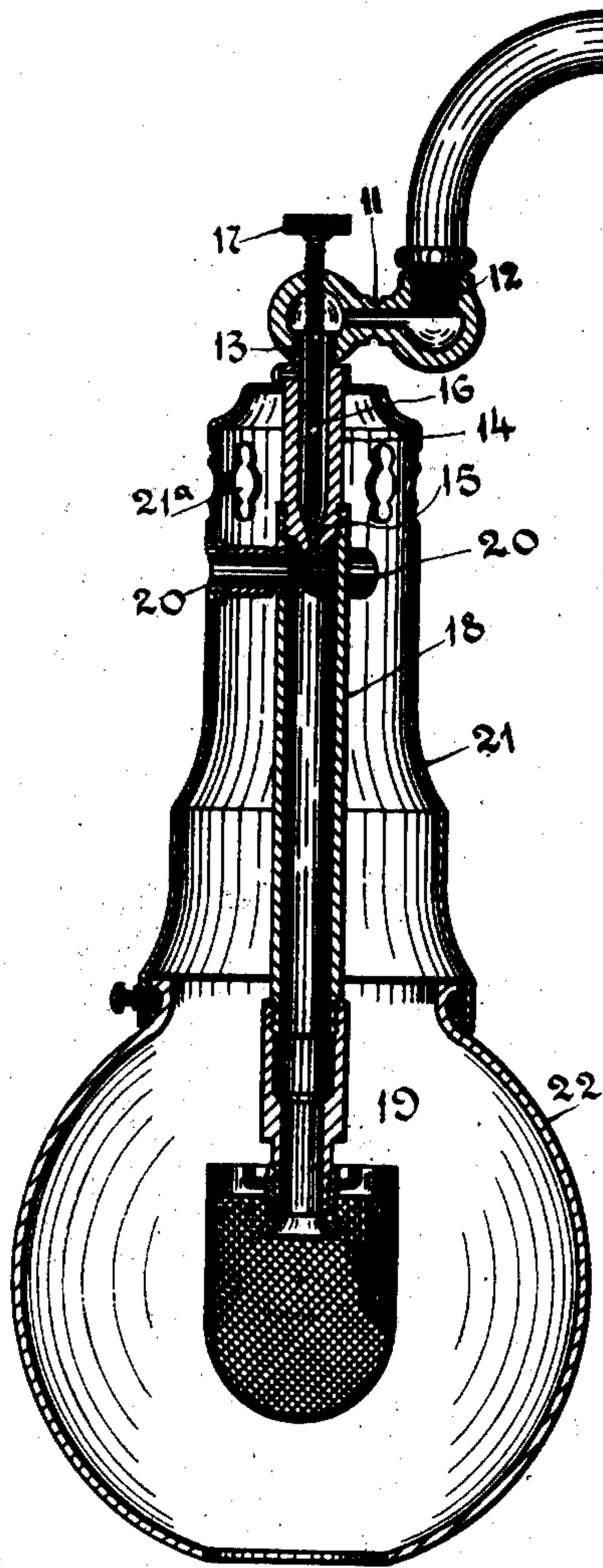


Fig. 1.

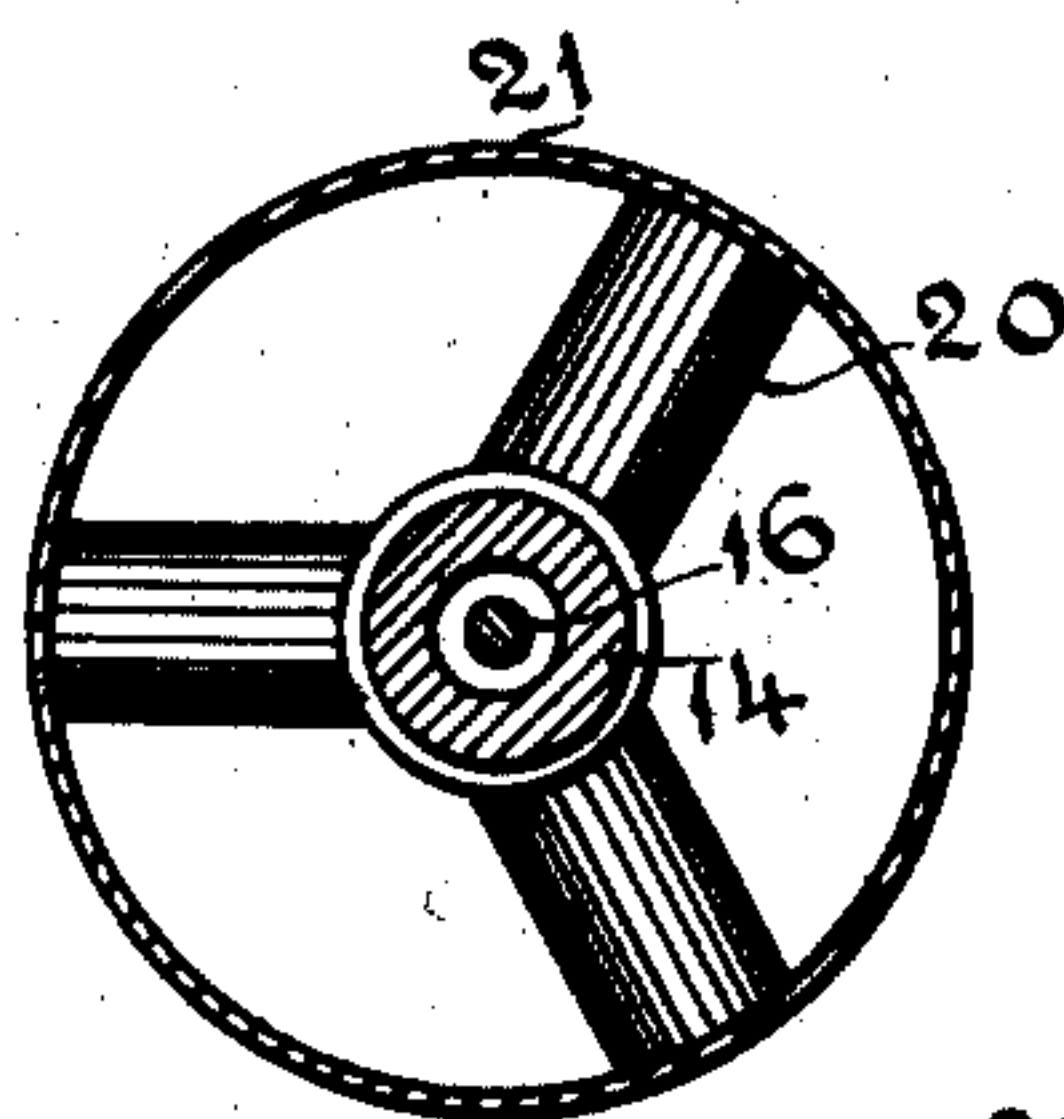


Fig. 3.

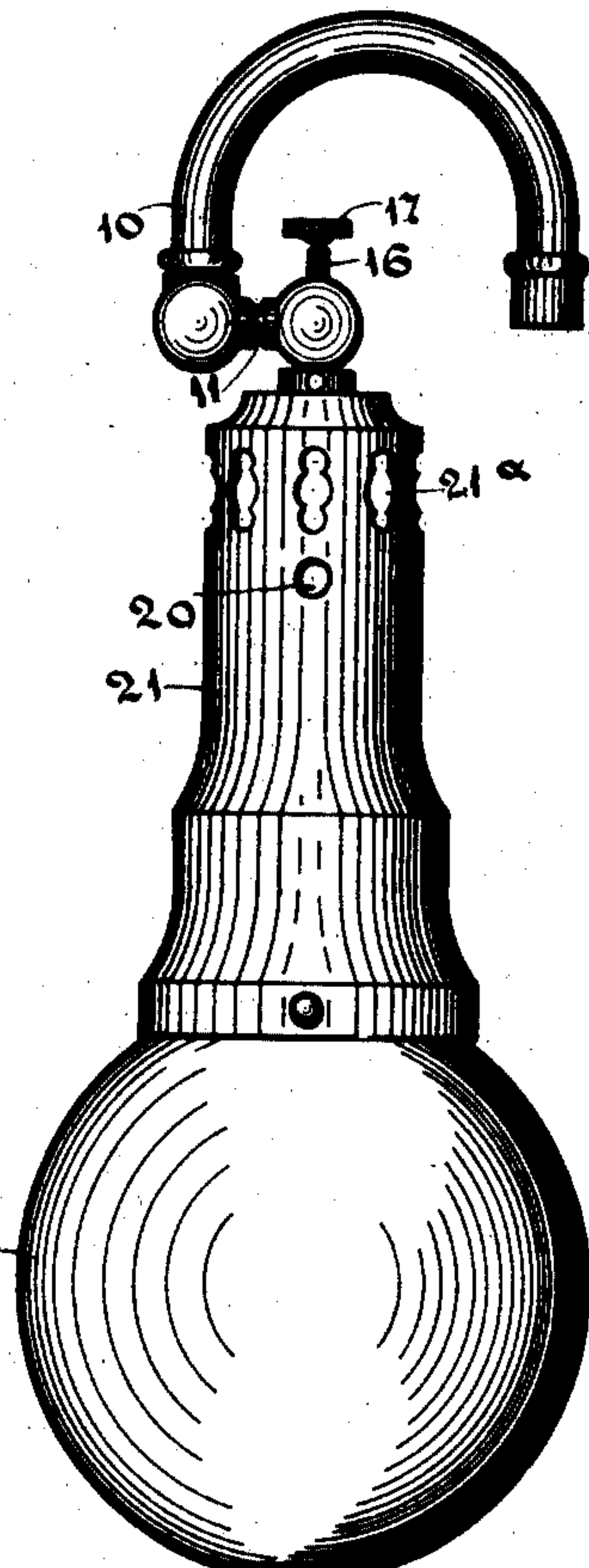


Fig. 2.

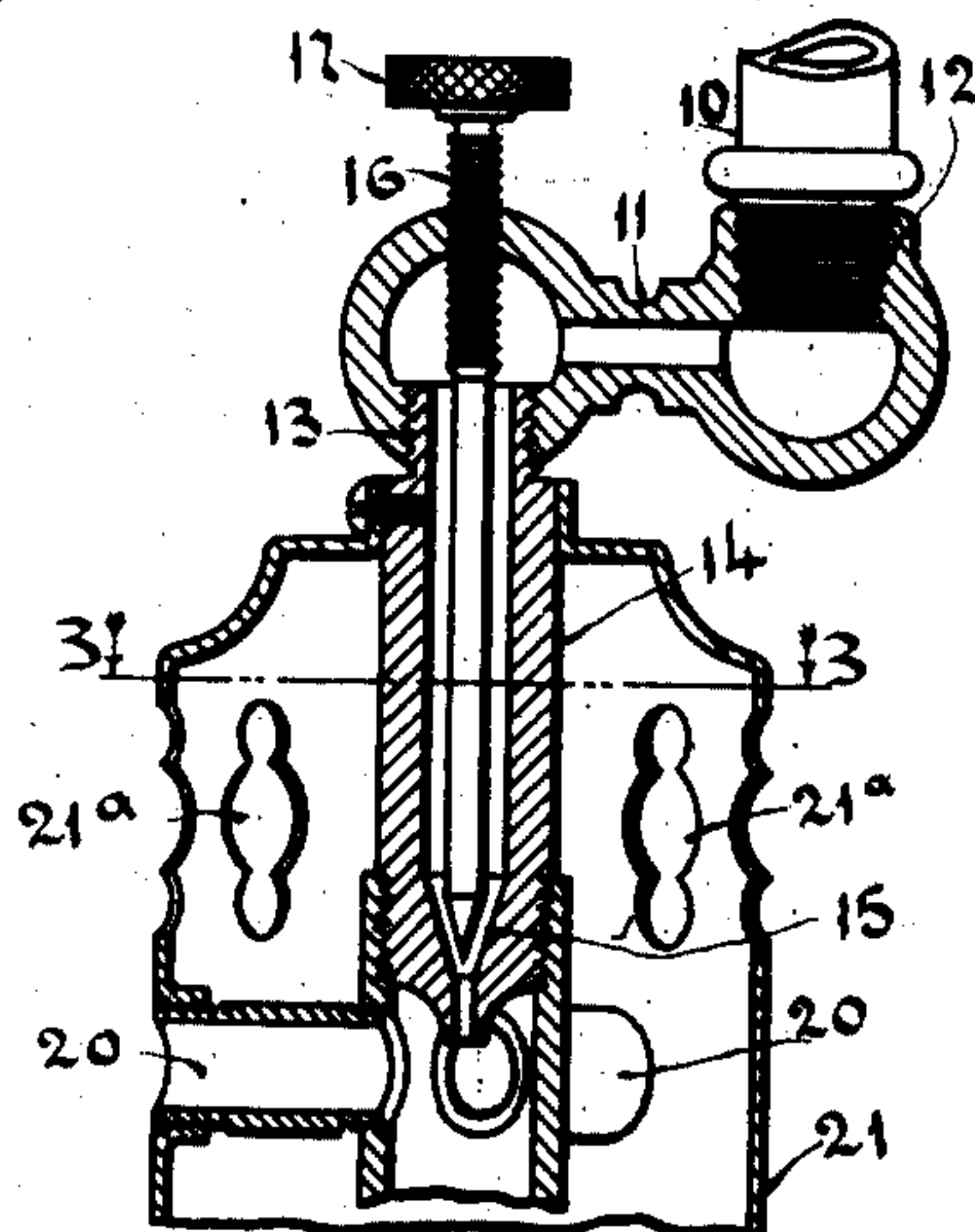


Fig. 4.

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2 SHEETS—SHEET 2.

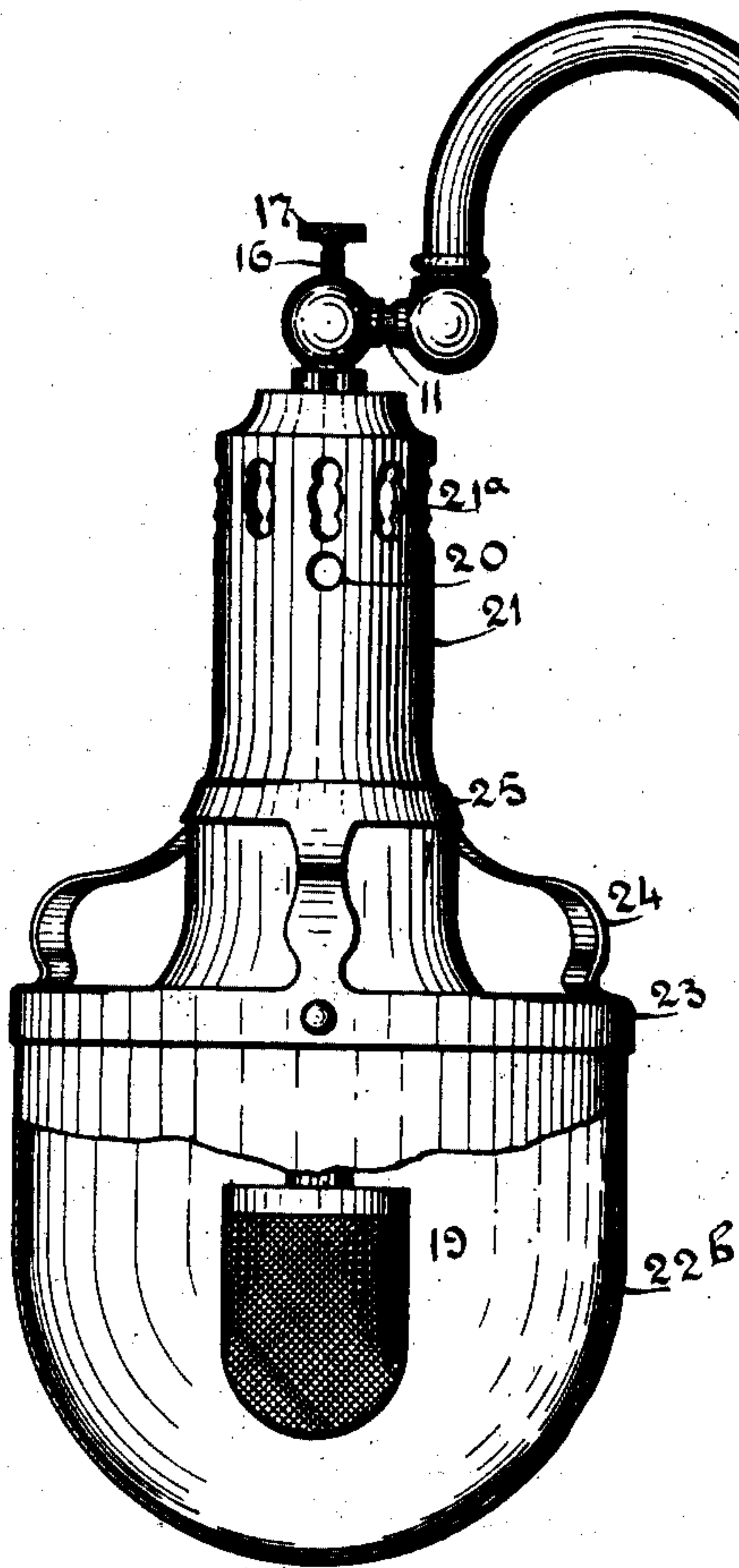


Fig. 5.

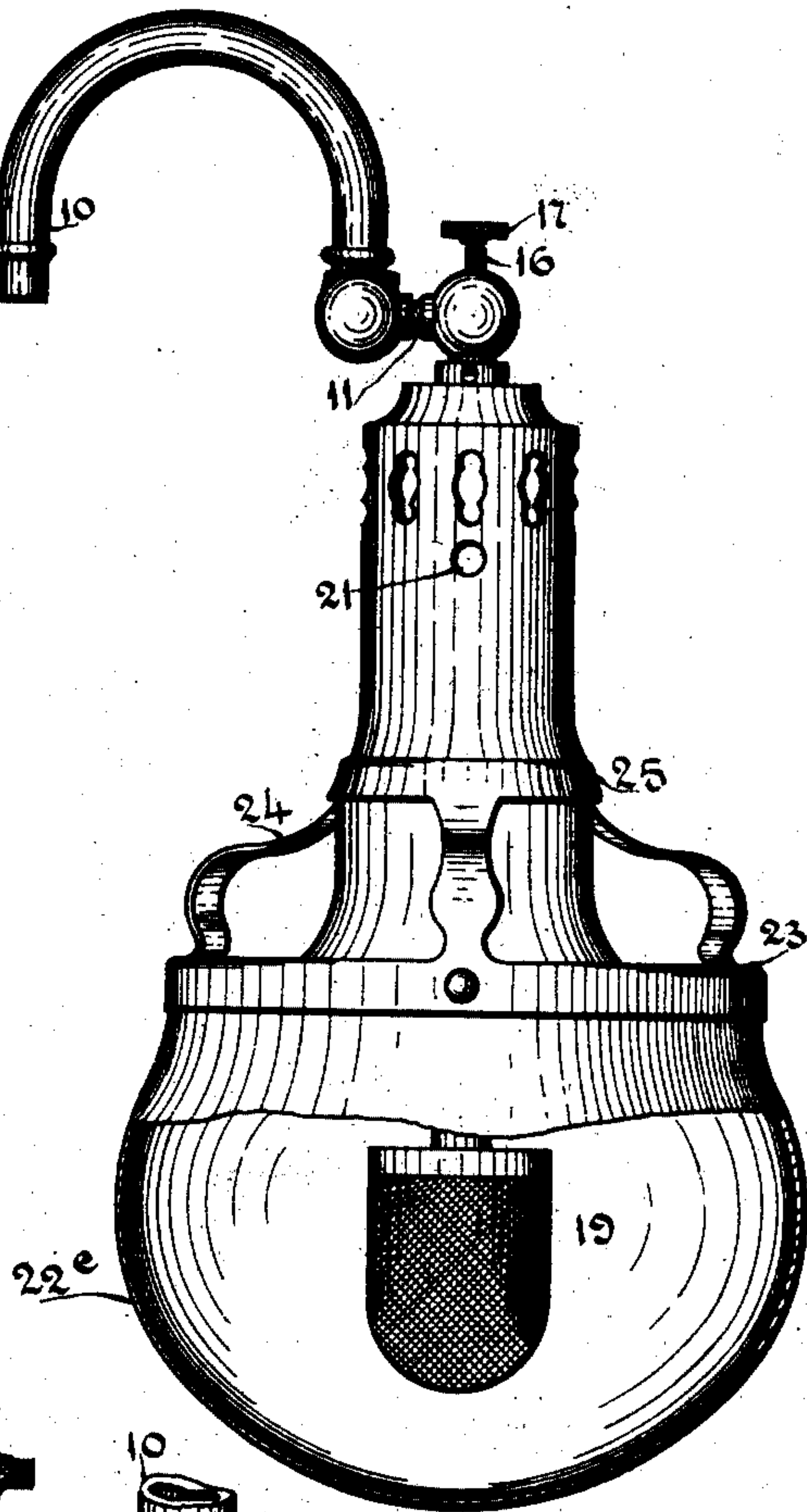


Fig. 6.

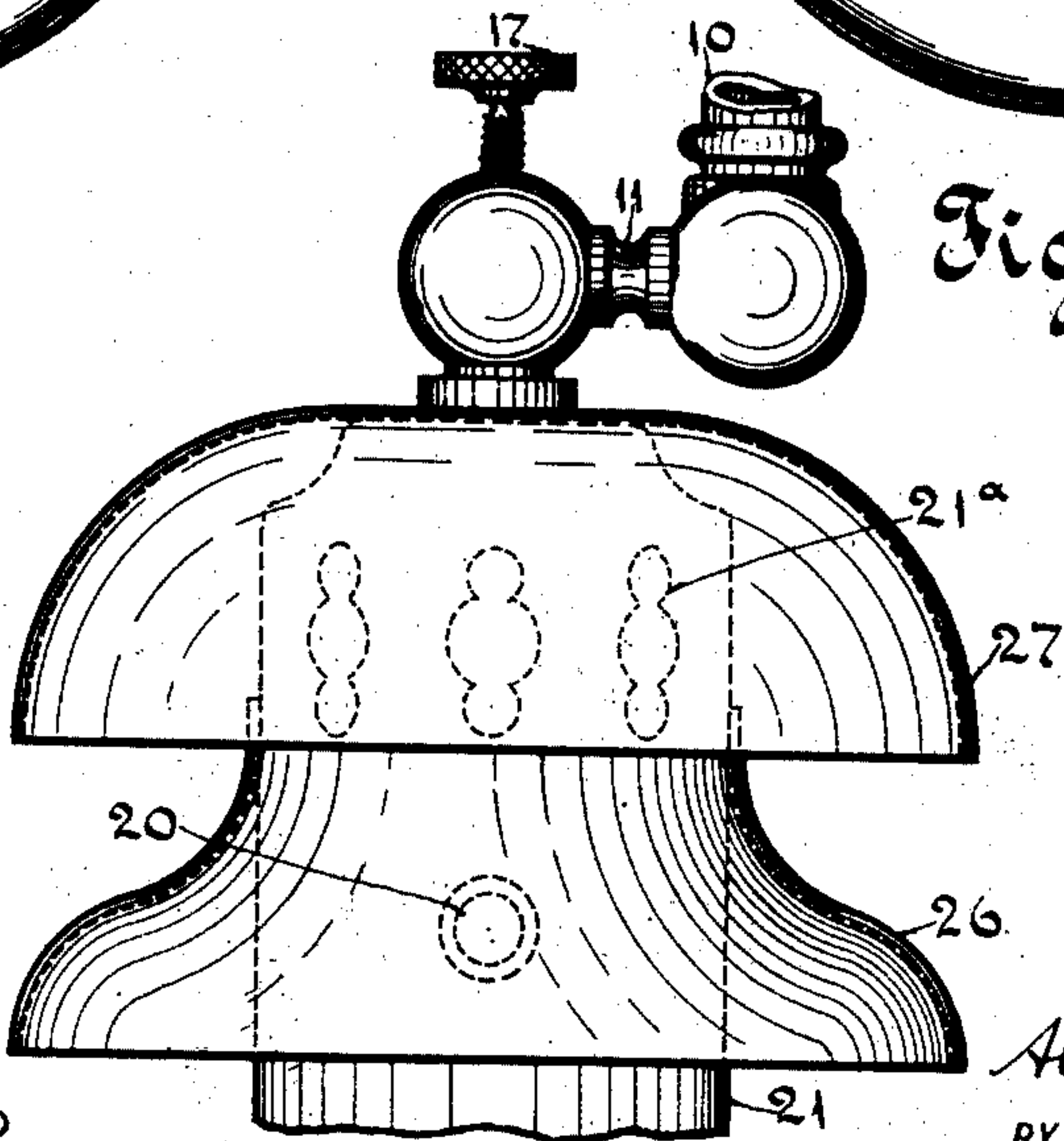


Fig. 7.

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# UNITED STATES PATENT OFFICE.

ALCORN RECTOR, OF NEW YORK, N. Y., ASSIGNOR TO RECTOR GAS LAMP COMPANY, OF NEW YORK, N. Y., A CORPORATION OF CONNECTICUT.

## INCANDESCENT GAS-LAMP.

No. 864,688.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed July 11, 1906. Serial No. 325,687.

*To all whom it may concern:*

Be it known that I, ALCORN RECTOR, of the city, county, and State of New York, have invented a new and Improved Incandescent Gas-Lamp, of which the following is a full, clear, and exact description.

My invention relates to improvements in incandescent gas lamps, such as use mantles, and more especially to that type of gas lamp known as the inverted burner, in which the gas is fed downward instead of upward to the mantle.

The object of my invention is to simplify the construction of burners of this class, make the burner more easily regulable, and also to provide a very simple, inexpensive and convenient way of adjusting the lamp as a whole.

With these ends in view, my invention consists of certain features of invention and combinations of parts which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in all the views.

Figure 1 is a vertical section of a lamp embodying my invention. Fig. 2 is a side elevation of the lamp with a slightly different form of globe from that shown in Fig. 1. Fig. 3 is a cross section on the line 3—3 of Fig. 4. Fig. 4 is an enlarged detail vertical section showing the principal parts embodying my invention. Figs. 5 and 6 are broken side elevations showing different forms of globes which can be used on the lamp, and Fig. 7 is a broken side elevation showing an attachment which may be used in connection with the lamp.

The lamp is suspended by means of a bent pipe or goose neck 10 which at one end is adapted to couple to an ordinary service pipe and which at the other end connects preferably by means of a screw thread, as shown at 12 with an arm or link 11 which turns horizontally on the coupling 12. The arm 11 is hollow to provide for a gas flow and screwed into it on the under side and outer end is the reduced part 13 of the gas supply pipe 14 which extends downward into the lamp and which at its lower end terminates in a vent 15 of usual construction, this part being adapted to receive the pointed end of the needle valve 16 which extends upward through the top of the link or coupling 11, being screw threaded therein as shown clearly in Fig. 4, and which at its upper end has a milled wheel 17 to turn it. This milled part 17 can if desired be of fiber or some non-conductor of heat, so that it will not get too hot to touch when the lamp is burning.

To the lower end of the supply tube 14 is attached preferably by screw threading the mixer 18 which extends downward to the mantle and burner 19, which parts may be of any approved construction. The air is supplied to the mixer through the pipes 20 which ex-

tend inward from the outer side of the draft tube 21 and this has suitable outlets 21<sup>a</sup> for the products of combustion, these outlets being located above the pipes or tubes 20, so that the inflowing air will be heated by the outflowing products of combustion.

To the lower end of the draft tube 21 is attached a globe 22 or 22<sup>a</sup> which can be open at the bottom, if desired, but I prefer to use a globe of the kind shown in Figs. 5 and 6 at 22<sup>b</sup> and 22<sup>c</sup>. However, the form of globe is not material, and any suitable style can be used. The closed globes, shown in Figs. 5 and 6, that is, the globes closed at the bottom, are preferable because no soot can be dropped from them, and where these are used, they can be suspended in any convenient way, so as to let the air in at the top. As shown, they are attached to rings 23, each of which is supported by arms 24, connecting with the ring 25, which are supported on the draft tube 21.

The main features of the invention, however, are shown clearly in Figs. 1 and 2, and consist particularly in the manner in which the lamp is hung, so that it can be turned freely from the pipe 10 which supports it, and the means of regulating the gas flow, which is done by the simple turning of the wheel 17 and valve 16. With most lamps this adjustment is quite a serious matter and requires the manipulating of a pipe or tube corresponding to 14 or a draft tube or chimney like the tube 21. In either case the parts get very hot and are hard to handle, and moreover, the adjustment is extremely difficult, but by having the needle valve extend directly downward to its seat with the turning part exposed where it can be easily touched, the adjustment of the gas flow can be easily and nicely accomplished. It will be observed that the structure is very simple and that a lamp made as described is cheaper than most inverted gas lamps.

It will further be observed that by arranging the pipe 10 and the link 11, as shown, the whole lamp is brought below the supporting pipe, so that it can be turned around to any desired position with relation to said supporting pipe. In some places I have found that there is so strong a draft of air that it blows into the tubes 20 and causes the oxygen to be supplied irregularly, and this makes the lamp puff. I have also found that where it is necessary to use the lamp out of doors the rain may pass in through the openings 21<sup>a</sup>. To obviate these difficulties I can provide a lamp with a hood 26 which is open at the bottom and slides on over the pipe or tube 21 which will prevent the air from blowing into the tubes 20, and if the lamp is to be used out of doors, I can add another tube 27 to cover the openings 21<sup>a</sup>.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent,—

In combination, a draft tube closed at one end and be-

ing enlarged at its opened end, said tube having openings  
adjacent its closed end, a globe carried by the opened end  
portion of the draft tube, a mixing tube within the draft  
tube, tubes connecting the mixing tube and the draft tube  
5 and communicating with the interior of the mixing tube  
and the atmosphere, said tubes being positioned beneath  
the openings in the draft tube, a mantle within the globe  
supported by the mixing tube, a supply pipe passing  
through the closed end of the draft tube and extending  
10 within the mixing tube, that portion of the pipe within the  
mixing tube being reduced to form a valve seat, a hollow  
arm secured to the portion of the supply pipe exterior of  
the draft tube, a needle valve threaded through the hollow  
arm acting in conjunction with the valve seat of the supply  
pipe, and a service pipe, said hollow arm rotatably en- 15  
gaging said service pipe and communicating therewith.

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Witnesses:

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