

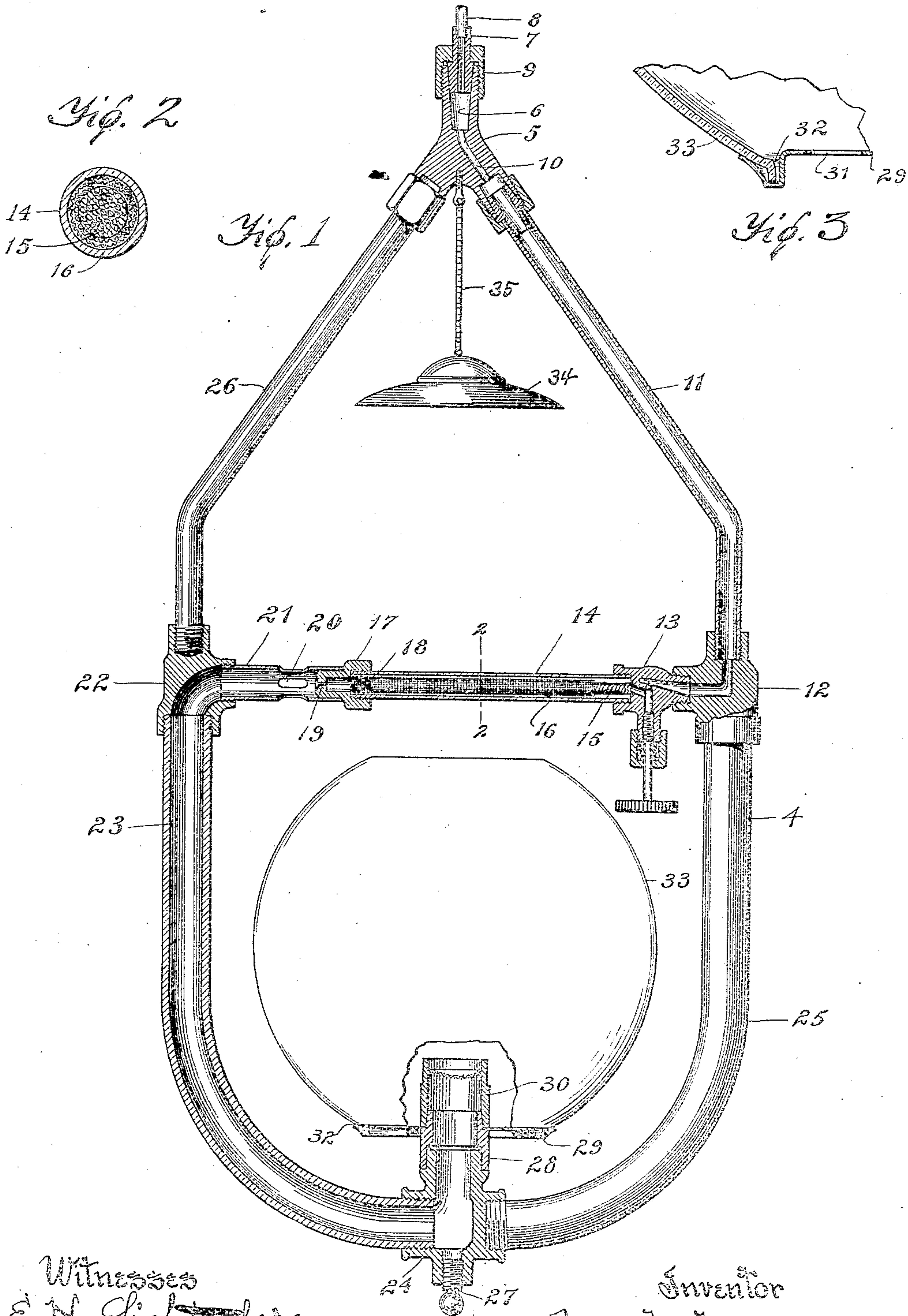
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LAMP.

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Witnesses  
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# UNITED STATES PATENT OFFICE.

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## LAMP.

No. 930,019.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, OSCAR A. ARNESON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

This invention relates more particularly to lamps adapted to be used for burning 10 gasolene or other liquids which are to be volatilized, but some of the features may be applicable to other types of lamps. Its objects are to provide an improved form of lamp with the parts so arranged and constructed that they may be conveniently assembled, and which will be efficient and durable in operation. I attain these objects in the device or apparatus shown in the accompanying drawings in which—

20 Figure 1 is an elevation showing a preferred form of my device, with parts broken away to show the interior construction; Fig. 2 is a sectional view of the generator tube taken on line 2—2 of Fig. 1; and Fig. 3 is a detail showing a portion of the globe and globe-holder.

As shown in the drawings, 4 represents the lamp as a whole, which comprises a suitable frame, generator, burner, etc. At the top 30 of the frame is a Y or three-way fitting 5 which has a tapered hole 6 in the top thereof to receive a tapered and shouldered connection 7 which connects with the feed pipe 8. The connection 7 is drawn down into the hole 35 6 to form a tight fit, by means of a nut 9 which engages with the shoulder of said connection. The two lower stems of the fitting are also provided with similar connecting devices, one of said branches being closed while 40 the other branch is provided with a passage-way 10 which allows the liquid to pass into a tube 11 which forms a portion of the lamp frame. The tube 11 is bent near the bottom and connects at its lower end with a tee 12 45 which has a passage-way therethrough leading to a valve 13. This valve admits the liquid to the generator tube 14 which contains suitable means for diffusing the fluid so that it may be generated into gas. I prefer to place in this tube a rod or core 15 of 50 suitable material, either absorbent or non-absorbent, and wrap around this rod or core wire gauze 16 which fits closely within the space between said core or rod and the inner 55 walls of the tube 14. While I have found

that asbestos rope wrapped in annealed brass gauze provides an efficient distributor for the generator, I am also aware that other materials may be used for this purpose.

The generator tube 14 connects with a tip 60 17 which is countersunk to receive said tube; and in order to prevent the core 15 or the gauze 16 from being forced into the tip to close the same, I insert a short section of spring 18 between the tip and the ends of the 65 rod and gauze, which effectually prevents such closure. The outlet orifice 19 of the tip 17 is countersunk or enlarged at the outer end to facilitate cleaning the same. As such tips occasionally become clogged, it is necessary to insert a wire into the orifice to dis- 70 lodge anything which may have stopped therein. As this wire is preferably inserted through one of the holes 20 which admit air into the tube 21 leading to, or forming a part 75 of the mixing chamber, it would ordinarily be difficult to direct the end of the wire into the small opening 19; but when the same is countersunk as shown, the wire will be readily directed into the orifice. The tube 21 80 connects with a tee 22 which has a passage-way connecting with a tube 23 which also forms a part of the frame and is curved at the lower end to connect with a fitting 24 which supports the burner. The frame is com- 85 pleted by a second curved tube or rod 25 which connects with the blind ends of the tee 12 and the fitting 24 and corresponds in appearance with the tube 23; and an upper top member 26 which connects with the blind 90 end of the tee 22 and is drawn up into engagement with the Y 5 by means of a tapered fitting as above described, this branch corresponding in appearance with the tube 11. The fitting 24 is provided with a drain 27 and 95 is shouldered at the top to receive a sleeve 28 forming the bottom portion of the burner. This sleeve is also shouldered to receive the globe-holder 29 which is securely held in position by a second sleeve 30 which fits tightly 100 over the tapered upper end of the sleeve 28. This latter sleeve is adapted to receive the cap which holds the mantle; but as this cap and mantle form no part of the present invention, they are not shown. 105

The globe-holder is of a novel form of construction and comprises a flat disk portion having holes 31 for admitting air to the globe and having a channel 32 formed around the periphery thereof to receive the flanged 110



bottom of the globe 33, the arrangement being such that the bottom edge of the flange rests in the bottom of the channel, while the outer flaring edge of the holder also supports  
 5 the body of the globe 33. This device will securely hold the globe while at the same time presenting little obstruction to the light and having no unsightly prongs extending up around the sides of said globe. The Y  
 10 also supports a bell 34, by means of a chain 35, as indicated.

When the lamp is to be started, the valve 13 is opened to admit a small amount of gasoline to the generator 14 which is first heated  
 15 by means of an alcohol swab or the like. The gas thus generated passes out through the orifice 19 where it is mixed with air which enters through the openings 20, and the mixture thus formed passes down through the  
 20 tube 23 to the burner where it is ignited. After the burner is lighted it will keep the generator tube heated, and the flow of gasoline or fluid may be regulated by means of the valve 13. The gauze 16 is of considerable  
 25 advantage, as it tends to diffuse the gasoline around in the tube 14 where it will become quickly heated and at the same time prevents the gasoline from passing too freely through the tube.

30 Having thus described my invention,

which I do not wish to limit to the exact details of construction herein shown and described, what I claim and desire to secure by Letters Patent is—

1. In a generator for lamps, the combination of a tube, a core or rod of noncombustible material in said tube, a strip of wire gauze wound around said rod and filling the space between said rod and the inner surface  
 35 of said tube, a perforated tip for said tube, 40 and a spring interposed between the end of said rod and said tip to prevent said rod from closing said perforation or abutting against said tip.

2. In a generator for lamps of the character described, the combination with a tube  
 45 leading from a source of supply, of a valve for controlling said supply, a tube engaging with said valve, a nonabsorbent rod or core in said tube, a reticulated metallic diffusing  
 50 member filling the space between said rod and said tube, a perforated cap at the opposite end of said tube, and a spring for preventing said rod from abutting against said cap.

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