

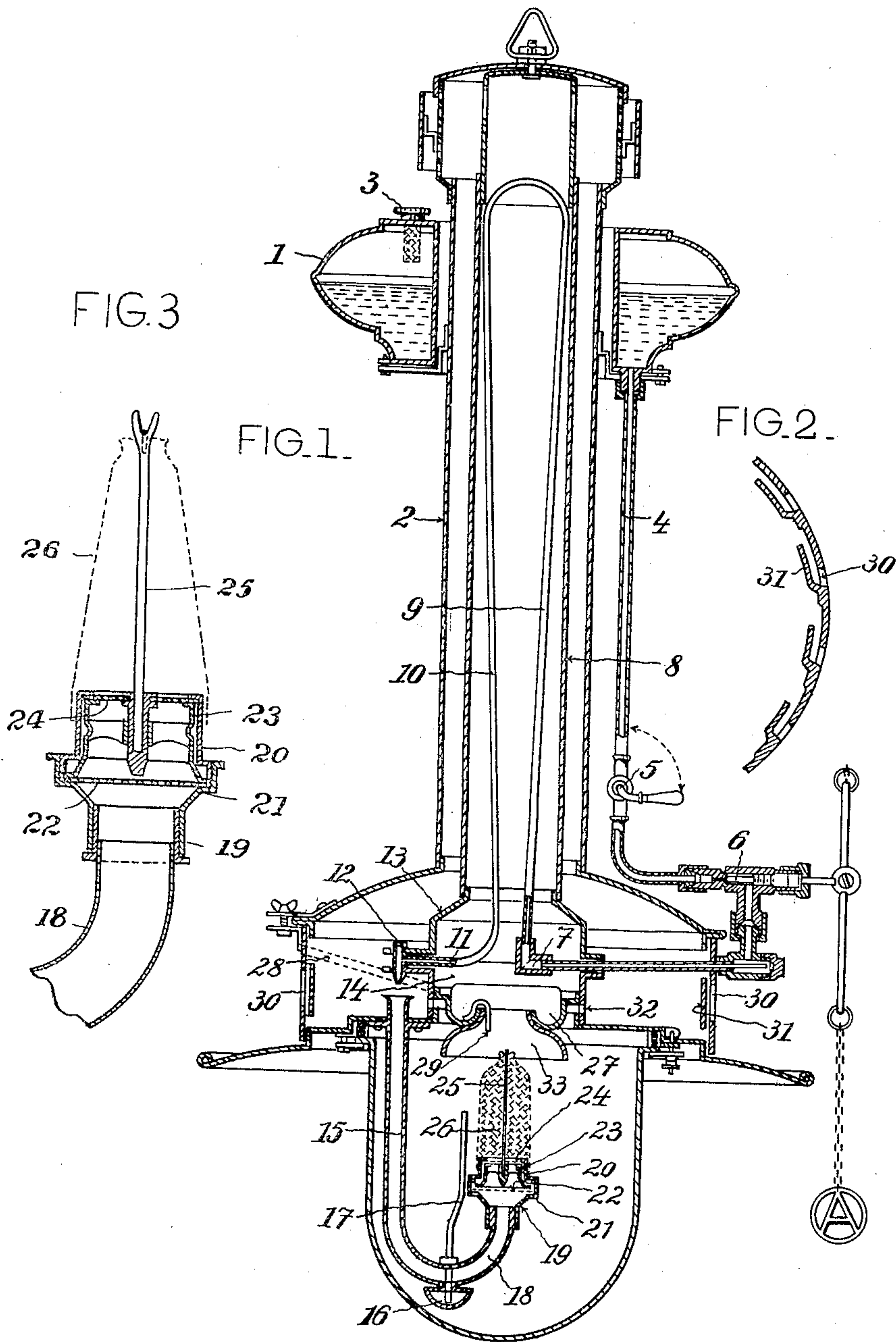
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LAMP.

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940,073.

Patented Nov. 16, 1909.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

EWALD SCHMIDT, OF MAHLSDORF, NEAR BERLIN, GERMANY, ASSIGNOR TO THE FIRM  
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## LAMP.

940,073.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed March 11, 1908. Serial No. 420,468.

*To all whom it may concern:*

Be it known that I, EWALD SCHMIDT, a subject of the German Emperor, and residing at Mahlsdorf, near Berlin, Germany, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

The subject-matter of the present invention is an improved incandescent lamp for liquid combustibles.

In order that the invention may be clearly understood reference is made to the accompanying drawing in which one embodiment is represented in Figure 1 in vertical sectional elevation by way of example. Fig. 2 is a detail. Fig. 3 is a vertical section of the burner-head on a larger scale.

Referring to the drawing, in the improved incandescent lamp for liquid combustibles, particularly for petroleum, a vessel 1 for a combustible is arranged in the upper part of the lamp attached to the outer cylinder 2. The combustible passes from the vessel 1, provided with a filling opening 3, through a supply pipe 4 by means of the tap 5 to a needle-valve 6; by adjusting the latter the combustible is allowed to flow in desired quantities to the gasifier 7. A tube 9 passing in the inner cylinder 8 above the highest level of the combustible is connected to the gasifier 7, and is bent downwardly, as clearly shown, the part 10 being bent near its bottom end and connected by the portion 11 to a nozzle 12.

In order to be able to put the gasifier 7 and the tubes 9, 10, 11 in position the lower part of the cylinder 8 is made of two parts 13 and 14; the latter are assembled after the gasifier 7 and the tube 9, 10, 11 with the nozzle 12 have been put in position.

Opposite the nozzle 12 there is arranged the mouth of the mixing pipe 15 which has at its lowest part a receptacle 16 for collecting condensed combustible. Into this receptacle 16 there projects a metal tube or metal rod 17 which conducts the heat emitted by the flame into the receptacle and gasifies the combustible liquid collected therein.

The mixing tube 15 ends in an upwardly directed portion 18 carrying the head of the burner. This burner-head consists of the two parts 19 and 20 which are connected with one another in such a manner that they

can be easily detached, for example by means of screw-threads or a bayonet-joint.

A diaphragm of gauze or a sieve 22 is placed on the shoulder 21 of the part 19 and a sieve 24 on the part 23. The latter is a fitting which rests on the partition of gauze 22 and is held in position by the part 20, as clearly shown in Fig. 3. Instead of two sieves more than two may be arranged, in order to certainly prevent the flame flashing back under any circumstances.

In the fitting 23 there is attached the carrier 25 for carrying the mantle 26. Above the mantle an igniting dish 27 is arranged which is fed with spirit or the like through a pipe 28. Ignition is effected by means of the pipe 29—namely after the spirit in the dish has been ignited by hand, a small flame burns at the lower end of the pipe 29 and ignites the vapors which rise from the burner-head owing to the heat of the large spirit flame rising from the dish.

Air is admitted by means of the holes 30 in the body of the lamp, at the inner side of which holes protecting pieces of sheet metal 31 are arranged in order to prevent the air entering radially, so that air flows into the chamber tangentially and passes through holes 32 (Fig. 1) to the flame. Above the mantle there is a funnel-like member 33 which is attached to the bottom of the dish 27 and conducts the hot gases from the burner upward to the tubes 9, 10.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In a lamp, an outer casing, a vessel attached to the upper part of the same, a vertical upwardly bent mixing tube carrying at one end a burner-head below said casing, a nozzle over the other end of said mixing tube, a gasifier over said burner-head, and a pipe provided with regulating means connecting said vessel with said gasifier, in combination with an inner casing encircling said gasifier, and a tube, connected with the latter, extending upward in said inner casing above the level of said vessel and returning to the level of said gasifier, passing through said inner casing and connected to said nozzle, said mixing tube having a hole in its lowest bent portion and being provided with a receptacle communicating with the interior of the tube through said hole, and a heat-

conducting rod arranged adjacent to said burner-head and extending into said receptacle.

2. In a lamp, a mixing tube having two  
5 vertical arms, and a curved bottom portion, a burner on one arm, a receptacle attached to and communicating with the bottom portion of said tube, and a rod extending from in-

side said receptacle through said tube to near said burner.

In testimony whereof I affix my signature  
in the presence of two witnesses.

EWALD SCHMIDT.

Witnesses:

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