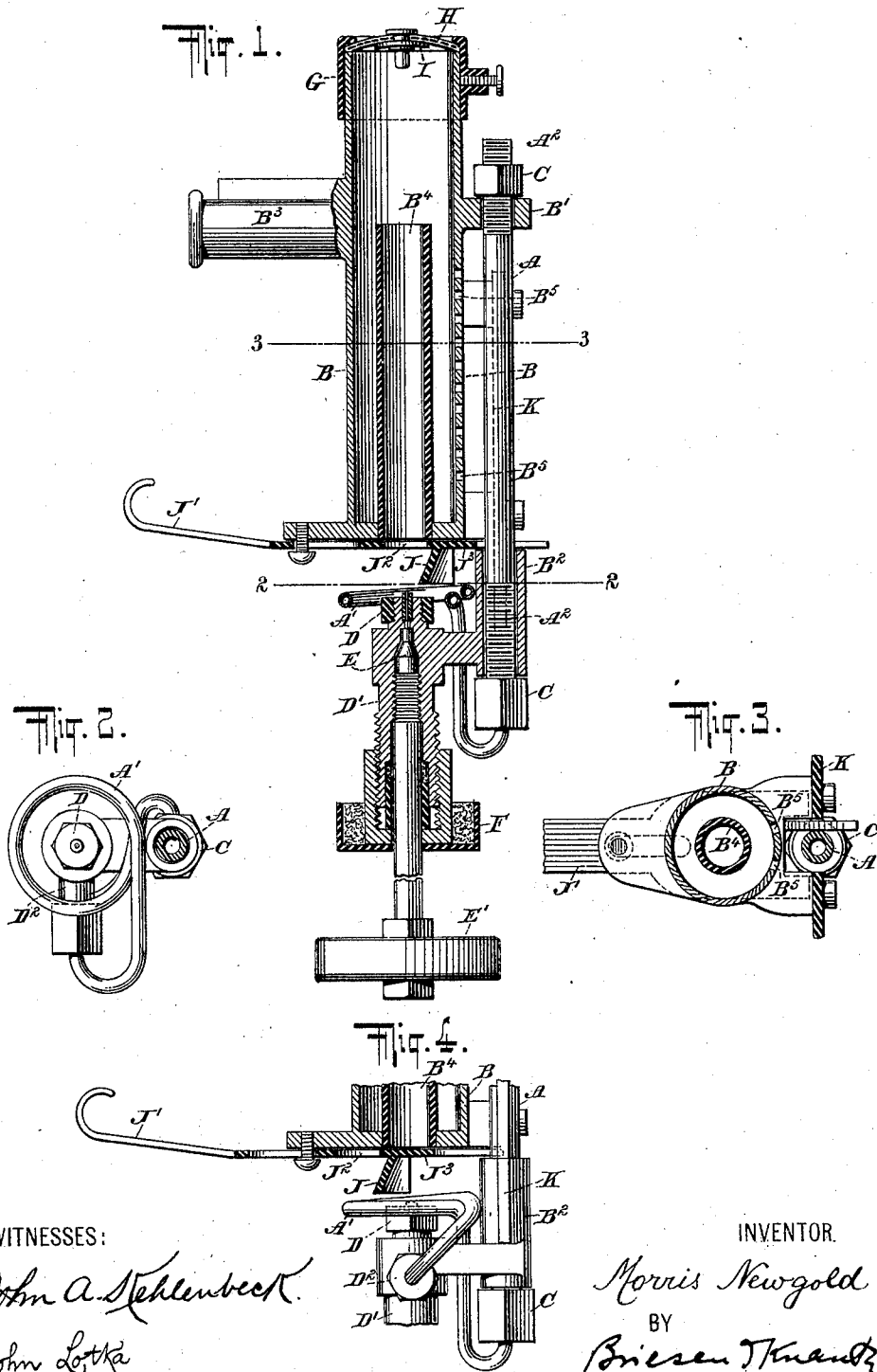


M. NEWGOLD.
VAPOR LAMP.
APPLICATION FILED MAY 7, 1909.

980,548.

Patented Jan. 3, 1911.



WITNESSES:
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VAPOR-LAMP.

980,548.

Specification of Letters Patent.

Patented Jan. 3, 1911.

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To all whom it may concern:

Be it known that I, MORRIS NEWGOLD, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Vapor-Lamps, of which the following is a specification.

My invention relates to vapor lamps, that is to lamps in which a liquid fuel is vaporized on its way to the burner and then consumed as vapor.

The objects of my invention are to provide a very simple and efficient starting device for lamps of this class, to combine with such starting device a heating arrangement which comes into action for bringing the liquid fuel to the desired temperature after the starting device has been thrown out of action, to improve the mechanical construction of the lamp so that all parts thereof may be readily removed and cleaned, and in general to obtain a lamp of high efficiency and simple construction.

The invention will be fully described hereinafter and the features of novelty pointed out in the appended claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a central sectional elevation of a lamp constructed according to my invention; Fig. 2 is a horizontal section on line 2—2 of Fig. 1; Fig. 3 is a similar view on line 3—3 of Fig. 1, and Fig. 4 is a partial sectional elevation showing the parts in a different position from that shown in Fig. 1.

A is a fuel-supply pipe, which is connected with a fuel-tank located at a suitable level so as to supply the liquid under pressure, or with any other source of fuel-supply. This fuel-supply pipe is preferably arranged to extend through brackets B', B² of the burner body B loosely and provided adjacent to said brackets with screw-threaded portions A², on which nuts C, may be screwed, it being understood that these nuts by engagement with the brackets B', B² will hold the fuel-supply pipe A firmly in position, while by simply unscrewing said nuts, this portion of the fuel-supply pipe may be readily removed. With the lower nut C is connected loosely what I will call the vaporizing portion of the liquid supply pipe, this portion being lettered A' and being formed into a coil adjacent to the upper end of the nozzle D. The body D' of this

nozzle may be carried by the lower bracket B². The delivery end of the vaporizing coil connects laterally, as at D² with the interior of the nozzle D, and a discharge of the vaporized fuel through the top of this nozzle is controlled by a valve E, provided with a handle E' for moving it up and down, or operate it in any other suitable manner. At the other end of the nozzle body D' is located a pan or other receptacle F adapted to contain the fuel used in starting the lamp.

The main burner body B is provided with an arm B³ by means of which the lamp may be connected with a suitable support. Within the hollow body B a tube B⁴ extends from the bottom to within a distance of the top, and at the upper end of the body B is located a cap G with a wire-gauze disk H, the central portion of which is preferably covered by an imperforate disk I. Below the bottom of the tube B⁴, a deflector J is arranged to move, and in the particular construction shown, said deflector consists of a sliding plate, provided with a handle J' and having its main portion or deflector properly arranged obliquely as shown; adjacent to this deflector portion J there is, on one side, an aperture J² and on the other side a solid portion J³ of sufficient size to entirely cover that portion of the lower end of the tube B⁴, which in the construction, as shown in Fig. 1, lies to the right of the deflector J when the latter is pulled over to the left (see Fig. 4). At the rear of the burner body B, and adjacent to the fuel supply tube A, is located a heating plate K, and that portion of the burner body which is adjacent to the heating plate, is provided with perforations B⁵.

The operation is as follows: The valve E is first opened with the deflector J in the position indicated by Fig. 4; the liquid fuel will then be thrown down so as to fall into the pan F. Then the fuel in the said pan is lighted. The flame from the pan F will not be able to extend into the tube B⁴, and therefore the heat will be concentrated upon the vaporizing coil A', and the fuel will soon become vaporized. When this has taken place, the slide carrying the deflector J is moved into the position shown in Fig. 1, so that the vaporized fuel mixed with air will pass from the nozzle D into the body B and escape through the gauze H at the upper end thereof. By the use of the im-

perforate disk I, I so reduce the area of the outlet that some of the vapor is compelled to escape through the apertures B^s, and as these hot vapors strike the heating plate K and the fuel supply pipe A, they will heat the fuel therein. It will therefore be seen that there is an inter-relation between the action of the deflector J and of the heater K. In its initial position, the deflector causes the fuel to be vaporized by fuel burning in the pan F. As soon as the deflector is moved into the other position, so that it no longer supplies the fuel to the pan F, the deflector allows the vapors to pass through the apertured body B to the heater K.

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

1. In a vapor lamp, the combination of a fuel supply pipe, a heating or vaporizing coil connected with and located adjacent to the outlet end of said pipe, another heating or vaporizing device located adjacent to said pipe at a point between said vaporizing coil and the inlet end of said pipe, a main burner arranged to receive the vaporized fuel and provided with means for directing a portion of said vaporized fuel against said second named heating device, and a deflector interposed between the main burner and the outlet end of said fuel pipe, said deflector being movable to permit the

fuel to reach either said vaporizing coil or said vaporizing device.

2. In a vapor lamp, the combination of a fuel supply pipe having a vaporizer adjacent to its outlet, a main burner provided with a series of perforations extending lengthwise of its body opposite a portion of the fuel supply pipe, a heating plate supported parallel with the body of said burner adjacent to the perforations thereof and also adjacent to a portion of the fuel supply pipe, a starting pan arranged to heat said vaporizer, and a movable deflector interposed between the delivery end of the fuel supply pipe and the burner.

3. In a vapor lamp, the combination of a perforated body and having an outlet, means for obstructing a portion of said outlet so as to retard the passage of the vapor and compel a portion thereof to pass out through said perforations, a heating plate secured adjacent to said perforations in the path of said vapor, a fuel supply pipe, a nozzle connected therewith, means for vaporizing the fuel at the nozzle, and a deflector adapted to control the passage of the vapor from the nozzle to the main burner.

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Witnesses:

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