

No. 774,769.

PATENTED NOV. 15, 1904.

S. M. MEYER.
IGNITER FOR OIL LAMPS.
APPLICATION FILED SEPT. 9, 1902.

NO MODEL.

Fig. 1.

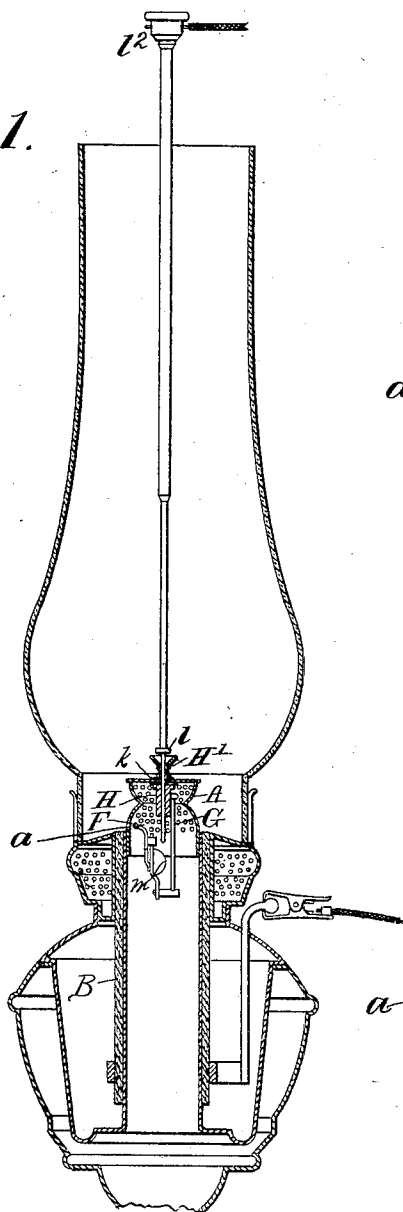


Fig. 2.

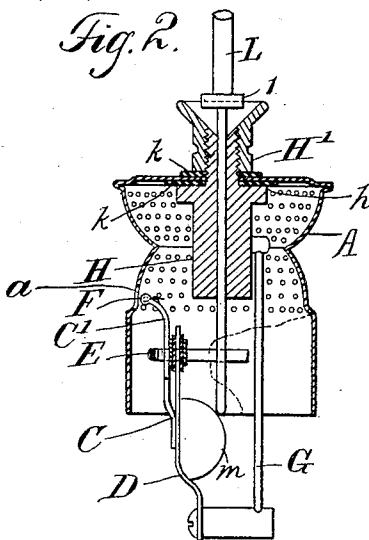
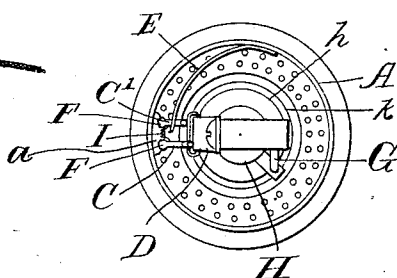


Fig. 3.



WITNESSES:

A. B. Mattingly
E. L. Lander

INVENTOR

S. M. Meyer

BY

Townsend & Ducker
ATTORNEYS

UNITED STATES PATENT OFFICE.

SVEND MARTIN MEYER, OF BROOKLYN, NEW YORK.

IGNITER FOR OIL-LAMPS.

SPECIFICATION forming part of Letters Patent No. 774,769, dated November 15, 1904.

Application filed September 9, 1902. Serial No. 122,665. (No model.)

To all whom it may concern:

Be it known that I, SVEND MARTIN MEYER, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Igniters for Oil-Lamps, of which the following is a specification.

My invention relates to the construction and manner of mounting of an electric lighter adapted to light the burner of an oil-lamp, and is designed primarily for that class of devices in which the electric lighter consists of an incandescing piece of platinum or other wire heated to incandescence by the passage of an electric current, although it is also applicable in some of its features to other forms or kinds of electrical devices organized to furnish heat sufficient to light the lamp by the action of an electric current.

It has heretofore been proposed to light the wick of an oil-lamp by means of an incandescing conductor attached to the air-distributor or thimble of the burner at one of its ends, as set out in my prior patent, No. 590,497, dated September 21, 1897. In the apparatus described in that patent the incandescent conductor is exposed to injury and is, moreover, located in the flame of the lamp. In other constructions the lighter has been mounted and operated in such manner as to require the presence of an opening in an exterior deflecting-cone around the lamp-wick.

The object of my present invention is to remove the objections to the previous constructions, and to this end I propose to mount the lighter within the central draft-tube by securing it to the internal air-distributor and providing means for causing the lighter to be projected through an opening in said internal air-distributor to light the lamp.

Another part of my invention consists in constructing the electric igniter and in so mounting the same that both terminals thereof shall be disconnected from the battery or source of current and in providing an implement adapted to operate the igniter and bring it into proper relation to the burner to light the wick and at the same time to furnish the connection from one pole of the battery to

one terminal of the igniter. Moreover, by mounting the igniter within the air-distributor or thimble I remove certain difficulties within prior constructions, owing to contact of oil with the platinum of the lighter.

In the previous constructions the platinum is in such position that it will become coated with oil passing along the walls of metal against which the platinum rests, and the oil having evaporated from the platinum coil leaves a sort of carbon deposit, so that when the coil is again heated a chemical action takes place between the deposited carbon and platinum that renders the platinum very brittle and finally destroys the same. In my improved construction herein described the platinum is withdrawn within the air cone or distributor away from position where it may be reached by oil creeping along the metal surfaces and is in position where air coming through the central draft-tube will circulate around it. Also it is so mounted as to move away from and toward the wick in a direction such that it will not rub against any part of the lamp and will therefore not be injured. The same difficulty, arising from deposition of carbon on the platinum, also present in previous constructions wherein the coil is so mounted as to lie against the side of the burner, is entirely avoided by my present construction.

Another part of my invention consists in the combination, with the incandescent lighter, of a pair of fenders or guards projecting in advance of the same and adapted to engage the wick and protect the conductor from contact therewith, thereby not only saving the conductor from injury, but keeping the same just out of contact with the wick and in the best relation thereto for causing the same to light by the heat of said conductor.

My invention consists, further, in details of construction and combinations of devices more particularly hereinafter set forth and then pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical section through a lamp equipped with devices embodying my invention. Fig. 2 is an enlarged vertical section through the air-distributor and the parts supported there-

by. Fig. 3 is a plan of the same parts viewed from beneath.

A indicates a perforated air-distributor or thimble used in connection with the central-draft burner of ordinary construction, and B indicates the wick which surrounds the central draft-tube, upon which the distributor A is mounted, as usual in the art.

At *a* the air-distributor or other portion of the central structure contiguous to the upper part of the wick is provided with an opening *a*, through which the igniter may be projected from within into suitable proximity to the upper end of the wick to light the same.

The electrical igniter itself consists in the present instance of a piece of platinum wire I, adapted to be rendered incandescent by the current from the battery or other source. The igniter I is mounted between two terminal wires or posts CC', being attached by soldering or otherwise at its terminals to said posts or wires C C' in any usual manner.

D is an arm which carries the posts CC' and is adapted to swing from the position shown in Fig. 2, so as to carry the wire I horizontally to the side of the distributor and into proper proximity to the upper end of the wick. One of the posts—as, for instance, C—is attached directly by soldering or otherwise to the arm D, so as to be in electrical connection therewith. The other post, C', is insulated from the arm, which may be accomplished by attaching it at its lower end to a piece of sheet metal which is wrapped around the arm D, a piece of mica or other insulation being interposed between the sheet metal and the arm. Said piece of sheet metal is applied above the point of attachment of the post C. The manner of mounting the two posts CC' upon the arm or support which carries them in such manner that one shall be out of electrical connection therewith obviously admits of many variations and forms no special part of my invention. The post C' or other part in electrical connection therewith is adapted to engage the contact-spring E when the arm is operated for the purpose of lighting the lamp. The spring E is connected with the metal-work of the lamp—as, for instance, with the distributor directly—and through said metal-work is in connection with one pole of the electric battery or other generator, which is permanently or temporarily attached or connected to said metal-work.

FF indicate a pair of projecting buttons or fenders extending from the posts C C' forward of the same, as clearly shown in plan in Fig. 3, and in such manner as to engage the wick near the upper end thereof when the arm is thrown over to light the lamp. These fenders or buttons project but slightly forward of the conductor I and permit the same to come into close proximity to the wick and preferably without actual contact. They practically serve to determine for each oper-

ation the exact distance between the incandescent wire and the wick itself, and thereby insure the proper operation of the device, which in practice requires that the wire should not touch the wick, although it must come near thereto.

The arm D is supported on the burner in any desired way. It preferably consists of a spring mounted on rod G, which extends from a post or pillar H. The latter may be secured to the metal-work in any desired way, but is preferably insulated therefrom. A convenient and preferable manner for attaching said post to the metal-work is to secure it, as shown, to the air-distributor and in an opening in the top thereof. For this purpose the post is provided with a shoulder, as shown at *h* in cross-section, and is fastened in the top of the distributor by means of a nut H'. Electrical contact of the post or pillar H and nut H' with the top plate of the air-distributor is prevented by mica or other insulation interposed as shown at *k*.

Any desired means may be employed for swinging the arm D to light the lamp or for forming electrical connection therewith from the opposite pole of the battery at the same time that it is operated. One device which may be employed for this purpose consists of a conducting-rod L, whose point or end is adapted to engage with an inclined projection *m* on the arm D, so as to force said arm sidewise by the action of the end of the rod on the inclined surface where it engages projection *m*. The rod L may be inserted through the hollow post H, as shown, for this purpose and is of sufficient length to project above the top of the lamp-chimney. A collar *l* upon the rod L limits the downward movement thereof when the lighter is operated, and thus determines the extent to which the arm D shall be projected.

Connection with the rod L from one pole of the battery may be made in any desired way. Thus, for instance, it may be provided at its top with a socket, as indicated at *l'*, adapted to receive the plug attached to a flexible terminal, as shown. Connection from the other pole of the battery to the metal-work of the lamp may be made by means of a conducting clip and cord detachably secured, as shown in Fig. 1, to the wick-raiser.

After lighting the lamp the rod may be withdrawn, or it may be left in place and the flexible terminal detached. In the normal position of the arm it will be seen that both poles or terminals of the electric lighter will then be out of connection with the electric battery. When the arm is depressed and the arm D is thrown over, the rod L by engaging the arm makes electrical connection between the post C and one pole of the battery, while connection from the other pole to the post or support C' is made by contact of said post with the spring E, so that the igniter

will become incandescent and light the lamp. The spring D operates obviously by its natural bias to automatically retract the lighter when pressure is removed from the rod L.

5 I claim as my invention—

1. The combination with an oil-lamp, of an air-distributor having an opening in its side, an electric igniter mounted within the central draft-tube, and means for projecting the same horizontally through the opening in the air-distributor and into proximity with the wick, as and for the purpose described.

2. In a central-draft lamp, the combination with the burner and the air-distributor therefor having an opening in its side at or about the level of the top of the lamp-wick, a post or stem secured to the top plate of said distributor and depending within the same, an electric igniter mounted upon a swinging arm carried by said stem, and means for projecting the same outwardly and horizontally through the opening in said distributor, as and for the purpose described.

3. The combination with an oil-lamp having a central draft-tube and an air-distributor at the top of the same provided with a lighting-opening in its side, of an electric igniter, a vertical spring-arm D supported within said tube and carrying said igniter opposite said opening and means for projecting said igniter outwardly through said opening, as and for the purpose described.

4. In an igniter for lamp-burners, the combination of an incandescing conductor, posts or wires between which the same is mounted, a swinging arm or support carrying said posts or wires and normally connected with one of them but electrically insulated from the other, a contact adapted to engage one of said posts or wires when the arm is operated, and means for actuating or operating said arm and simultaneously making electrical connection therewith.

5. The combination with a central-draft lamp, of an air-distributor, a stem or post centrally supported in the top plate of said distributor but insulated therefrom, a vertical swinging arm secured to said post, an electric igniter mounted on the end of said arm in proximity to an opening in the side of the air-distributor near the top of the lamp-wick, and means for swinging said arm horizontally to project the igniter through said opening.

6. The combination in an electric igniter for lamps, of a perforated air-distributor having an opening in its side adapted to permit an electric igniter to be projected through it, means for supporting an electrical igniter within the air-distributor and in close proximity to said opening, the contact-spring also secured to said distributor and adapted to be

engaged by the igniter when the same is operated, and means for projecting said igniter horizontally through the opening in the distributor, as and for the purpose described. 65

7. The combination with a central-draft lamp having a perforated air-distributor, of an electric igniter, an arm movably supported within the central draft-tube and supporting said igniter and normally insulated, means for projecting the igniter through an opening in the distributor, and an electric contact secured within the central draft-tube and in electrical connection with the burner, said contact being arranged in position to be engaged by and to make electrical contact with a part of the movable igniter when the same is projected to light the lamp. 70 75

8. The combination with a lamp having an air-distributor for the burner thereof, of a hollow post secured to the top plate of the distributor, an igniter carried by an arm secured to the post or stem, means for fastening said post to the distributor, and an actuating-rod extending vertically through the post for operating the igniter. 80 85

9. The combination with a central-draft lamp and its air-distributor, of a perforated post H carrying the igniter, and a conducting-rod L, adapted to be inserted through the lamp-chimney and said post, so as to engage with the movable support of the igniter, thereby operating the same and forming electrical connection with one of the poles or terminals of said igniter. 90 95

10. In an electric igniter for oil-lamps, the combination with the incandescing conductor mounted on a movable support and adjustable to and from the wick, of projecting fenders carried by said support and adapted to guard the conductor from contact with the wick and at the same time to determine the distance between the conductor and wick when the igniter is operated to light the lamp. 100

11. In an electric igniter for oil-lamps, the combination with a burner, of a spring-arm D mounted upright within the central draft-tube, an electric igniter mounted upon the free end of said arm, an air-distributor having an opening in its side immediately opposite the igniter, and a projection on the arm having a vertical incline whereby to carry the igniter horizontally through the opening in the air-distributor. 105 110

Signed at New York, in the county of New York and State of New York, this 29th day of August, A. D. 1902. 115

SVEND MARTIN MEYER.

Witnesses:

E. L. LAWLER,
A. B. MATTINGLY.