Feb. 17, 1925. 1,526,464

O. C. DENNIS

MAGNETIC LAMP HOLDER

Filed June 18, 1921

Fig. 1.

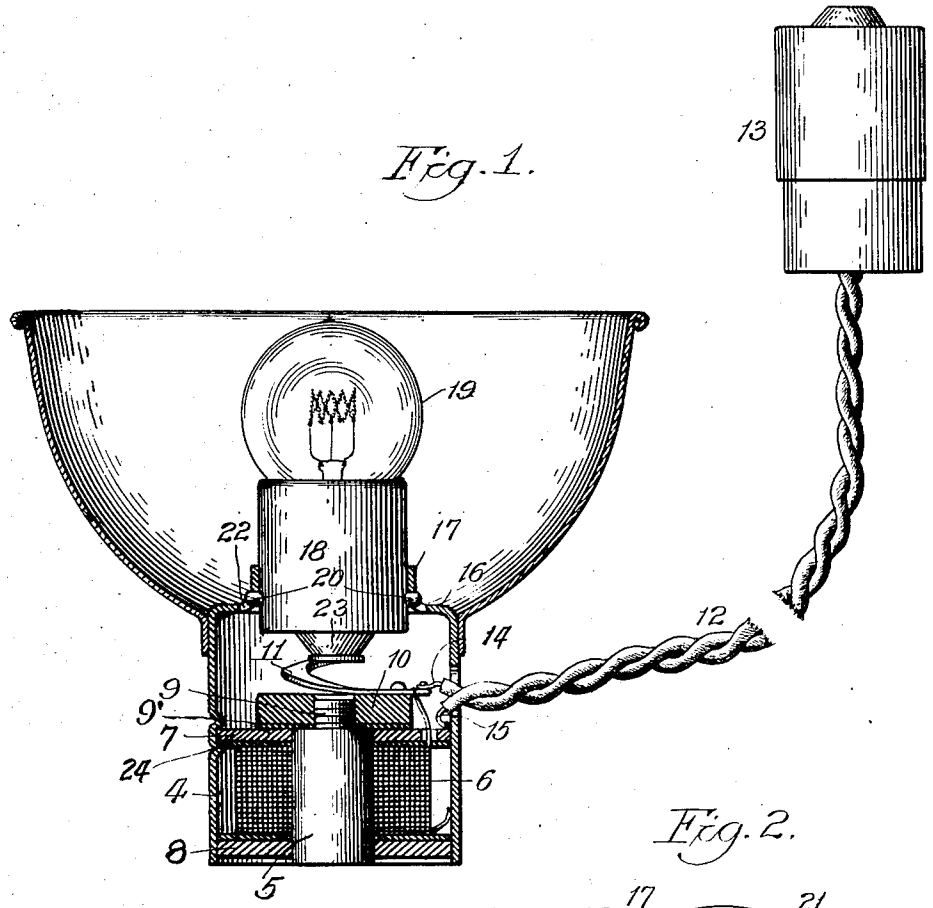


Fig. 2.

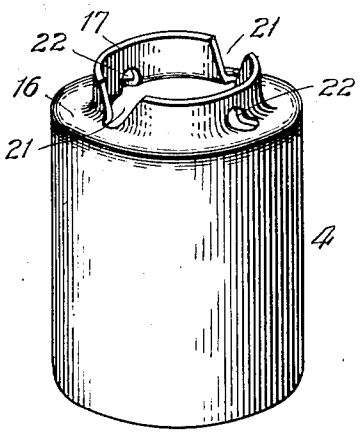
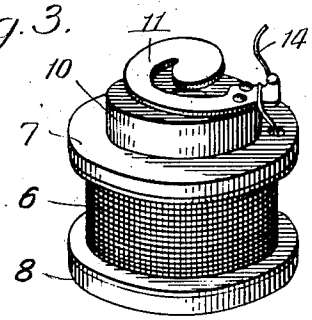


Fig. 3.



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UNITED STATES PATENT OFFICE.

OLIVER C. DENNIS, OF WILMETTE, ILLINOIS.

MAGNETIC LAMP HOLDER.

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To all whom it may concern:

Be it known that I, OLIVER C. DENNIS, a citizen of the United States, and a resident of Wilmette, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Magnetic Lamp Holders, of which the following is a full, clear, and exact description.

The invention relates to magnetic lamp-holders.

The object of the invention is to provide a magnetic holder for an electric lamp, which is simple in construction, efficient in operation and can be produced at a low cost.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Fig. 1 is a section of a lamp-holder embodying the invention. Fig. 2 is a perspective of the casing. Fig. 3 is a perspective of the magnet and the switch-member mounted thereon.

The invention is exemplified in a device comprising a cup-shaped casing 4, containing a holding magnet comprising an iron core 5, a helix 6, an inner magnetic head 7 and an outer non-magnetic head 8. A screw 9 is integrally formed with the core 5, extends through the inner end 7 of the magnet and is threaded to a circular block 10 of insulating material. A spring switch-member 11 is secured on the upper face of the insulating block and an insulating-washer 9′ is interposed between head 7 and block 10 to prevent the connections, which secure the switch-member 11 to the block, from contacting with said head. A flexible cord 12, which is provided at one end with a plug 13, which is adapted to be inserted in an ordinary lamp-socket, comprises a conductor 14 which is electrically connected to the resilient switch-member 11, and a conductor 15 which is electrically connected to the casing 4. One end of helix 6 is connected to the switch-member 11 and the other to the casing 4. The upper end of the casing 4 is turned inwardly, as at 16, and flanged, as at 17, to form a socket adapted to receive the base 18 of an incandescent lamp 19. This base is provided with projecting studs 20 which are adapted to pass through notches 21 in the constricted flanged portion 17 of the casing and to be held in the perforations 22 when the studs are turned, after they have been inserted into the casing and placed into position to pass into said holes. The spring switch-member 11 engages the tip-contact 23 of the lamp and also presses the entire lamp outwardly to cause the studs 20 to be locked in the openings 22. The lamp-base 18 is connected to one terminal of the lamp-filament and the tip-contact 23 to the other, as well understood in the art. The magnet 7 is spaced from the flange or constricted portion of the casing and is secured therein against relative longitudinal movement by indenting the case, as at 24, to secure the inner magnet end 7.

When the current is supplied to the conductors, the circuit for the lamp will be as follows: Conductor 14, switch-member 11, tip-contact 23, the lamp filament, lamp-base 18, studs 20, casing 4, and conductor 15. At the same time, a circuit will be established for the operation of the magnet from conductor 14 through member 11 and helix 6 and casing 4 to conductor 15. The magnetic flow will be through the core 5, magnet-head 7, the lower portion of the casing 4 and the magnetic part on which the magnet will be held.

The invention exemplifies a device which is simple in construction, in which the necessity of insulating the lamp from the casing is avoided, and in which the casing is utilized as a part of the lamp-circuit and as a part of the path for the magnetic flux. The invention also exemplifies a magnetic lamp holder in which a metallic one-piece shell serves as a casing for holding an incandescent lamp and enclosing the holding magnet and the contact means for the lamp.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a portable electric lamp, the combination of a casing, an electromagnet comprising a helix disposed within and adjacent one end of the casing, the latter forming a part of the magnetic path for said magnet, a lamp having a base adapted to make electrical contact with and to fit into the other end of the casing, contact means in the casing between the magnet and the lamp for

making electrical connections with the lamp, an electrical conductor connected to the casing, and a conductor connected to the contact and to one end of the helix, the other end of the helix being connected to the casing.

2. In a portable electric lamp, the combination of a one-piece shell provided at one end with an integral inturned portion having integral means to directly interlock with and removably hold a lamp base, a lamp having a base provided with means to interlock with said means on the shell, an electro-magnet comprising a helix and a head fitting within and contacting with an integral portion of the shell adjacent the inner end of the helix, a contact in the shell mounted on and insulated from the magnet and adapted to engage a contact on the lamp base, and conductors for supplying current to the contact and the helix, the portion of the shell containing the magnet and said head forming a portion of the path for the magnetic flux.

3. In a portable electric lamp, the combination of a one-piece shell provided at one end with an integral inturned portion having an integral longitudinally extending flange provided with means to hold and interlock with a lamp base, a lamp having a base provided with means to interlock with the means on said flange, an electro-magnet comprising a helix and a head fitting within and contacting with an integral portion of the shell adjacent the inner end of the helix, a contact in the shell mounted on and insulated from the magnet and adapted to engage the contact on the lamp base, and conductors for supplying current to the contact and helix, the portion of the shell containing the magnet and said head forming a portion of the path for the magnetic flux.

4. In a portable electric lamp, the combination of a one-piece shell provided at one end with an integral inturned portion and an integral longitudinally extending flange provided with notches, a lamp having a base provided with means to enter said notches and interlock with the flange to removably hold the lamp in the shell, an electro-magnet comprising a helix and a head fitting within and contacting with an integral portion of the shell adjacent the inner end of the helix, a contact in the shell mounted on and insulated from the magnet and adapted to engage a contact on the lamp base, and conductors for supplying current to the contact and the helix, the portion of the shell containing the magnet and the head forming a portion of the path for the magnetic flux.

OLIVER C. DENNIS.