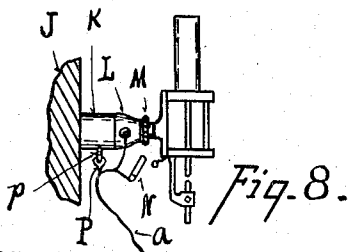
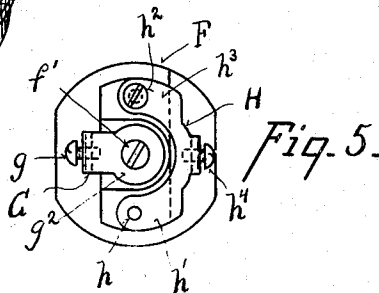
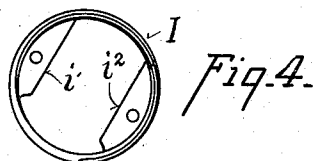
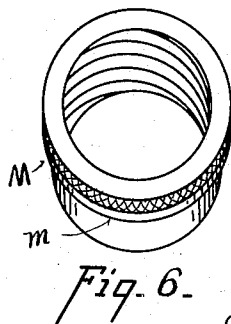
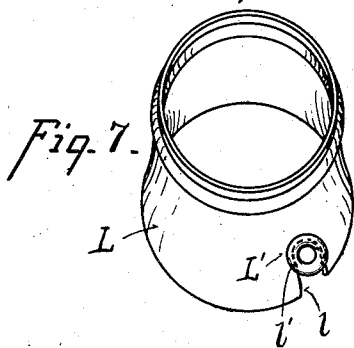
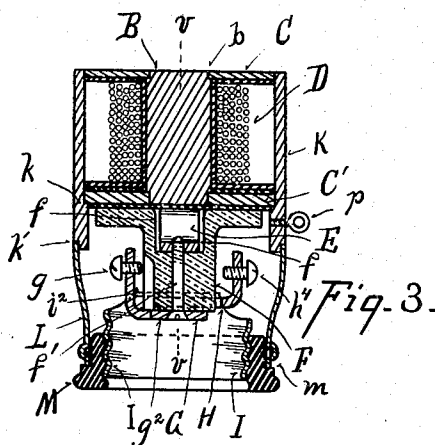
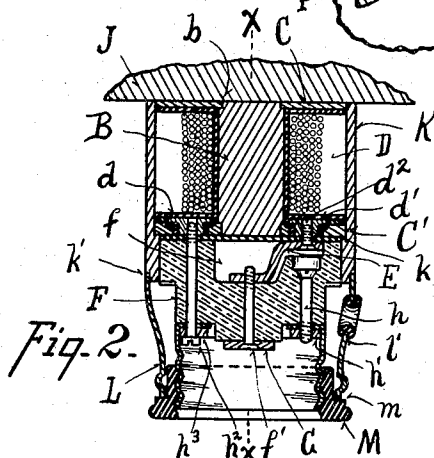


921,108.



Witnesses

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# UNITED STATES PATENT OFFICE.

DAVID J. HAUSS, OF AURORA, INDIANA.

## MAGNETIC ELECTRIC-LIGHT HOLDER.

No. 921,108.

Specification of Letters Patent.

Patented May 11, 1909.

Application filed February 20, 1908. Serial No. 416,841.

*To all whom it may concern:*

Be it known that I, DAVID J. HAUSS, a citizen of the United States, residing at Aurora, in the county of Dearborn and State of Indiana, have invented certain new and useful Improvements in Magnetic Electric-Light Holders, of which the following is a specification.

My invention relates to improvements in magnetic sockets, or holders for electric lights.

One of its objects is to provide a magnetic holder which will retain its position when current is cut off from the electric light, and which is sufficiently economical in consumption of electricity to permit its being held in the desired position, or positions, for long periods of time.

Another object is to provide improved arrangement of parts and means of assembling whereby the parts are firmly secured together, and are at the same time readily separable for repairs or other purpose.

Another object is to provide means for assembling or separating the parts without disturbing or injuring the magnetic coil.

Another object is to provide an arrangement of parts enabling the application thereof to electric lights and parts thereof of standard form and size.

It further consists in certain details of form, combination and arrangement, all of which will be more fully set forth in the description of the accompanying drawings, in which:

Figure 1 is a side elevation of my improved holder in position for use. Fig. 2 is an enlarged section through the holder on line *v-v* of Fig. 3. Fig. 3 is a section through the same on line *x-x* of Fig. 2. Fig. 4 is an end view of the threaded socket to receive the light. Fig. 5 is an end view of the porcelain head and lamp connections with the threaded socket detached. Fig. 6 is a perspective view of the assembling collar. Fig. 7 is a perspective view of the housing for the porcelain head and connections. Fig. 8 illustrates the holder employed to support an electric light.

My improved holder is designed to hold an electric light by means of magnetic attraction to any desired position upon any iron object, such as a piece of machinery, or structural iron, and to permit it to be readily shifted as required from one place to another.

In the accompanying drawings, representing one form of my improved mechanism A represents an ordinary incandescent lamp

socket, A' represents an extension plug, *a*, a flexible conductor or light cord of any desired length. To the opposite end of the cord *a* is attached and electrically connected my improved magnetic holder or socket. The magnet comprises a central iron core, B, the ends of which are preferably reduced slightly in diameter at *b b'*. At the end of *b'* is tightly fitted a thick iron washer or disk, C'. The disk C' is perforated to receive two insulated and threaded metallic sleeves, *d, d'*. The exterior of core B, and the inner face of disk C' are then covered with insulating material and a coil of insulated wire, D, slipped over the core B, the terminals of the coil D being secured to the sleeves *d, d'* respectively. A non-magnetic disk, C, is then tightly fitted to the end, *b*, of core, B, being insulated from coil D on its inner face. The opposite side of disk C' being insulated a metal connecting bar, E, is united to sleeve *d'* by a screw, *d<sup>2</sup>*. A head, F, of insulating material, preferably porcelain, is then fitted over the connecting bar E, which enters a recess, *f*, provided therefor. A screw, *f'*, serves to unite a connecting bar, G, on the exterior of the head F with the bar E, into which screw *f'* is threaded, thereby forming one of the attachments to hold head F in place. The bar G has a binding screw, *g*, by means of which one strand of the lamp cord, *a*, is electrically connected thereto. A connecting bar, H, is attached to head F by means of a screw, *h*, threaded into one arm, *h'*, of bar H, while screw *h<sup>2</sup>* passes through the other arm, *h<sup>3</sup>*, of bar H to clamp bar H to head F, the screw *h<sup>2</sup>* being threaded into sleeve *d* serving thereby to hold head F in place upon disk C'.

I represents a threaded metallic shell or socket into which the base *i* of an incandescent light is adapted to be screwed. The shell I is attached to head F by means of ears, *i', i<sup>2</sup>* which are locked between head F and the arms *h', h<sup>3</sup>* of bar H by screws *h, h<sup>2</sup>*.

In order to provide a bipolar magnet and a housing and protection for the coil D I provide an iron tubular shell, K, which is recessed on the interior to provide a shoulder, *k*, against which one face of disk C' seats, and is recessed at the opposite end on the exterior at *k'* to receive the tubular housing, L. When the parts of the magnet are in the position Fig. 2 the magnetic circuit is completed by the core B, the disk C', housing K and the iron object, J, to which the holder is to be at-

attached by magnetic attraction. This arrangement permits of the use of a minimum current consumption to secure the requisite magnetic attraction to retain the holder in place, and with the coil D connected in shunt circuit with the electric light, the holder will retain its position when the current through the light is cut out, which may be done by partially unscrewing the incandescent light in the socket I, or by a separate switch, N, as indicated in Fig. 8, and the current consumption through coil D even for a considerable period will be inconsiderable compared with the current consumption through the light.

A collar, M, preferably of insulating material, threaded on the interior to engage the exterior of the shell I serves to hold shell I and housing L centrally one within the other, and by the pressure of collar *m* upon the end of housing L to draw the head F and disk C, core B and coil D within the housings K, L, seating the disk C' firmly against shoulder *k* and housing L against shoulder *k'*, and binding all the parts into a compact unit. It will be noted that in order to obtain access to any part of the device it is only necessary to unscrew the collar M, whereupon the other parts may be separated. In order to provide a passage for the conductors *a* through the housing, and to protect the conductors from injury I provide a slot *l* in the housing L in which is seated a collar L' of insulating material, which collar is provided with an external annular groove *l'* which groove engages the edges of the slot *l* to retain collar L' in place.

I preferably connect the coil D in shunt circuit with the electric light, thus avoiding liability of the holder being released from its position by a break in the lamp, filament, or similar cause, and also permitting the current through the lamp to be interrupted without detaching the holder. As shown in Fig. 2 one lead wire is connected to bar G the face *g*<sup>2</sup> of which makes direct contact with the central contact of an incandescent bulb, while current is supplied by screw *f*', bar E, screw *d*<sup>2</sup>, and collar *d*', to one terminal of coil D. The other lead wire is connected by screw *h*<sup>4</sup> to bar H which through shell I contacts with the threaded terminal of the light bulb, while screw *h*<sup>2</sup> and collar *d* serve to make connection with the opposite terminal of the coil D. A connection P attached at one end by eye *p* to housing K and at the opposite end to cord *a*, serves to prevent heavy strains on the contacts at screws *g*, *h*<sup>4</sup> which might otherwise break these connections.

The mechanism herein illustrated and described is capable of considerable modification without departing from the principle of my invention.

Having described my invention, what I claim is;

1. In a mechanism of the character indi-

cated a core of magnetic material having a non-magnetic disk attached to one end, and a disk of magnetic material attached at the opposite end, a coil of insulated wire encircling said core between said disks, a tubular housing of magnetic material recessed on the interior to receive said disks, and having a shoulder against which said disk of magnetic material seats, a head of insulating material attached to said disk of magnetic material, a tubular socket attached to said head, said socket being internally threaded to receive and hold the electric light, and externally threaded to engage a threaded collar, and a collar threaded upon the exterior of said socket and adapted to lock said core, disks and coil within said housing.

2. In a mechanism of the character indicated a core of magnetic material having a non-magnetic disk attached to one end, and a disk of magnetic material attached at the opposite end, a coil of insulated wire encircling said core between said disks, a tubular housing of magnetic material recessed on the interior to receive said disks, and having a shoulder against which said disk of magnetic material seats, a head of insulating material attached to said disk of magnetic material, a tubular socket attached to said head, said socket being internally threaded to receive and hold the electric light, a housing for said head seating at one end upon a shoulder on said housing of magnetic material, and a collar threaded upon the exterior of said socket and engaging the opposite end of said housing for the head to draw said head and core within said housings, and to lock the parts in the assembled position.

3. In a mechanism of the character indicated, a core of magnetic material, a disk of magnetic material attached to one end of said core, a coil of insulated wire encircling said core with its terminals passing through an insulated passage in said disk, a tubular housing of magnetic material adapted to house and protect said coil and having an internal shoulder to seat against said disk, an insulated head attached to said disk, an externally and internally threaded socket carried by said head adapted to receive a threaded plug to support an electric light, and a collar threaded upon the exterior of said socket, and serving to lock said core, coil and disk within said housing.

4. In a mechanism of the character indicated, an electro magnet, an insulated head attached to said magnet, a threaded socket attached to said head, and adapted to support an electric light, contact bars carried by said head, a housing for said head and socket, said housing being provided with a slot at one side, and a collar of insulating material forming a passage through the said housing for the lead wires, said collar having an annular external groove registering with the slot in

said housing to retain said collar in position relative to the housing.

5 In a mechanism of the character indicated, a core of magnetic material having a disk of non-magnetic material attached to one end and a disk of magnetic material attached at the opposite end, a coil of insulated wire encircling said core, a tubular housing of magnetic material recessed upon the interior to receive said disks and to form a shoulder against which said disk of magnetic material seats, an externally threaded mem-

ber attached to said core, an internally threaded collar engaging said threaded member to lock said core and disks within said housing of magnetic material, and means for detachably connecting an electric light to the magnetic holder. 15

In testimony whereof I have affixed my signature in presence of two witnesses.

DAVID J. HAUSS.

Witnesses:

C. W. MILES,  
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