

No. 809,183.

PATENTED JAN. 2, 1906.

W. D. HARRIS.  
CURRENT TAP.

APPLICATION FILED MAR. 24, 1905.

Fig. 1.

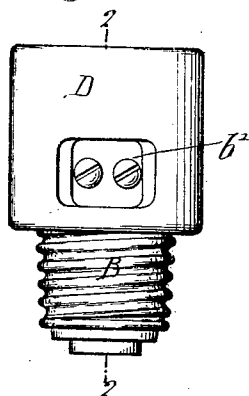


Fig. 2.

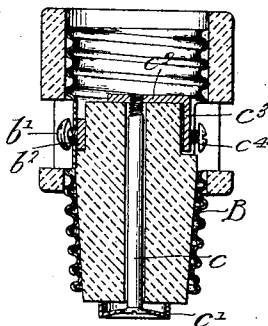


Fig. 3.

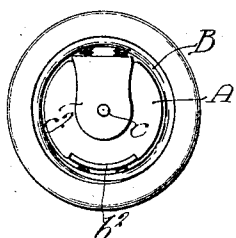


Fig. 5.

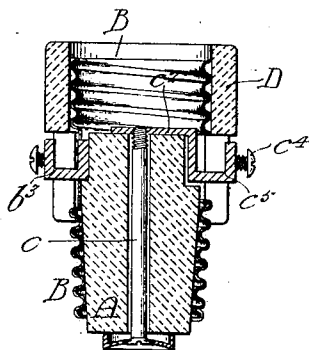
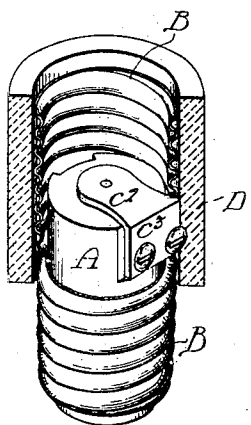


Fig. 4.



Witnesses:  
Walter T. Pullinger.  
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Inventor  
William D. Harris.  
by his Attorneys.  
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# UNITED STATES PATENT OFFICE.

WILLIAM D. HARRIS, OF PHILADELPHIA, PENNSYLVANIA.

## CURRENT-TAP.

No. 809,183.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed March 24, 1905. Serial No. 251,836.

*To all whom it may concern:*

Be it known that I, WILLIAM D. HARRIS, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Current-Taps, of which the following is a specification.

My invention consists in an improved device designed to receive an incandescent lamp and to be entered into a lamp-socket, which shall at the same time provide means for the convenient attachment of conductors whereby current may be delivered from the device (commonly known as a "current-tap") to any desired apparatus.

It is further desired to provide a current-tap having the above-noted characteristics, which shall be not only of simple and inexpensive construction, but whose parts shall be so arranged that it is pleasing in appearance and convenient to manipulate.

These objects I attain as hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved current-tap. Fig. 2 is a sectional elevation of the structure shown in Fig. 1, taken on the line 2 2. Fig. 3 is a plan view of the current-tap shown in Fig. 1. Fig. 4 is a perspective view, partly in section, of the structure shown in Fig. 1; and Fig. 5 is a modified form of my invention.

In the above drawings, A is a supporting-body, usually of porcelain or other non-conducting material, upon which is carried a metallic shell B of such dimensions that it projects beyond said body for a distance sufficient to permit it to receive an incandescent lamp-base in the well-known manner. This shell, it will be noted, is made in one piece and is so formed that its portion *b*, which extends over one end of the body A, is of such diameter as will permit it to be entered into lamp-sockets of the ordinary construction, while its opposite end is slightly larger so that a lamp may be properly entered into it.

The body A is provided with a central longitudinal passage through which extends a screw or bolt *c*, serving to mechanically and electrically connect a contact-plate *c'* on one end of said body A with a second contact-plate *c''* on the other end of said body, this latter plate having a portion *c'''* substantially at right angles to the end of the body A and being provided with one or more binding-screws *c''''*.

It will be understood that the shell B is cut

away adjacent to the portion *c'''* of the plate *c''*, while on the opposite side of said shell are two or more terminal screws *b'*, passing through said shell and entering a metallic piece *b''*, set in a recess in the body A. The screws *b'* not only act as a terminal for the shell B, but also prevent revolution of the latter upon the body A by their engagement with the piece *b''*. They also prevent longitudinal motion of said body A relatively to the shell B. A porcelain or other protective shell D extends over that end of the metallic shell B which projects beyond the body A and also incloses the two sets of terminal screws *b'* and *c''*, being preferably provided with openings through which access may be had to said screws.

When in use, the exposed portion of the threaded shell B may, if of the Edison type, as shown, be screwed into a lamp-socket, the plate *c'* engaging with the central plate in said socket, while its threaded portion contacts with the threaded shell of the socket. A lamp or attachment plug may now be screwed into its open end, so that the central contact thereof will engage with the portion of the plate *c''* at the end of the porcelain body A, while the threaded portion of the inserted structure contacts with the interior of the forwardly-projecting portion of the shell B. Any suitable electric conductors may be connected to the binding-screws *b'* and *c''* for the purpose of supplying current to various forms of electrical apparatus, such as fan-motors, &c.

If desired, lugs, as *b'''* *c'''*, may be respectively connected to the shell *b* and to the piece *c''*, so that the terminal screws *b'* and *c''* are caused to project beyond the surface of the porcelain casing D, while the lugs are brought flush with the outside surface of said casing.

I claim as my invention—

1. In a current-tap, the combination with a body of insulating material of a set of plug-contacts and a second set of socket-contacts, and terminals for the attachment of conducting-wires in electrical connection with certain of said contacts, there being a single metallic shell having a portion serving as one of the plug-contacts and another portion serving as one of the socket-contacts, substantially as described.

2. In a current-tap, the combination with a body of insulating material of a set of plug-contacts and a second set of socket-contacts,

- and terminals for the attachment of conducting-wires in electrical connection with certain of said contacts, there being a single metallic shell having a portion serving as one of the plug-contacts and another portion serving as one of the socket-contacts, with an insulating-casing extending around the terminals and a portion of the shell, substantially as described.
3. In a current-tap, the combination of a supporting-body of non-conducting material, a shell upon and projecting beyond the same, said projecting portion of the shell being constructed to receive a lamp and another portion of the shell being constructed to enter a socket, electrically-connected contacts on opposite ends of said body, and two terminals for the attachment of current-conductors, one of said terminals being electrically connected to the conductors on the ends of the body and the other being electrically connected to the metallic shell, substantially as described.
4. The combination in a current-tap of a body of non-conducting material, a metallic shell carried thereby having two portions, of which one is formed to enter a socket and the other is formed to receive a lamp, two contacts in electrical connection with each other and respectively carried on opposite ends of the porcelain body, one of said contacts having a portion extending adjacent to an opening in the shell and being provided with a binding screw or screws, with a second binding screw or screws in electrical connection with said shell, substantially as described.
5. The combination in a current-tap of a body of non-conducting material, a metallic shell carried thereby having two portions, of which one is formed to enter a socket and the other is formed to receive a lamp, two contacts in electrical connection with each other and respectively carried on opposite ends of the porcelain body, one of said contacts having a portion extending adjacent to an opening in the shell and being provided with a terminal screw or screws, a second terminal screw or screws in electrical connection with the shell, and a casing surrounding a portion of said shell and provided with openings placed to permit of access to said terminal screws, substantially as described.
6. The combination of a porcelain body, contact-pieces on opposite ends of the same, means for electrically connecting said pieces, a metallic shell carried on the body electrically insulated from said contacts and having one portion constructed to enter a socket and another portion constructed to receive a lamp, means for preventing motion of the said shell and said body relatively to each other, with terminals for the connection of conductors respectively connected to the shell and to the contact-pieces, substantially as described.
7. The combination of a supporting-body, a metallic shell thereon having a portion for the reception of a lamp and another portion shaped to enter a lamp-socket, a piece carried in a recess of said body, a screw passing through the shell and entering said piece, electrically-connected contacts on opposite ends of the body, and conductor-terminals respectively connected to said contacts and to the shell, substantially as described.
8. The combination of a body of non-conducting material, contacts on opposite ends of the same, a screw passing through the body and electrically and mechanically connected to said contacts, one of the contacts having an extension, a shell carried by the body and having a portion projecting beyond one end of the same for the reception of a lamp and another portion constructed to enter a lamp-socket, with terminals respectively connected to said extension of one of the contacts and to the metallic shell, substantially as described.
9. The combination of a body of non-conducting material, conducting-pieces on opposite ends of the same, a screw passing through the body and electrically and mechanically connecting said pieces, one of the pieces having an extension, a shell carried by the body having a portion projecting beyond one end of the same for the reception of a lamp, and another portion constructed to enter a lamp-socket, terminals respectively connected to said extension of one of the contact-pieces and to the metallic shell, and a casing of non-conducting material surrounding the open end of the metallic shell, substantially as described.
- In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.
- WILLIAM D. HARRIS.
- Witnesses:  
WM. E. SHUPE,  
JOS. H. KLEIN.