

Feb. 27, 1934.

C. M. COLE

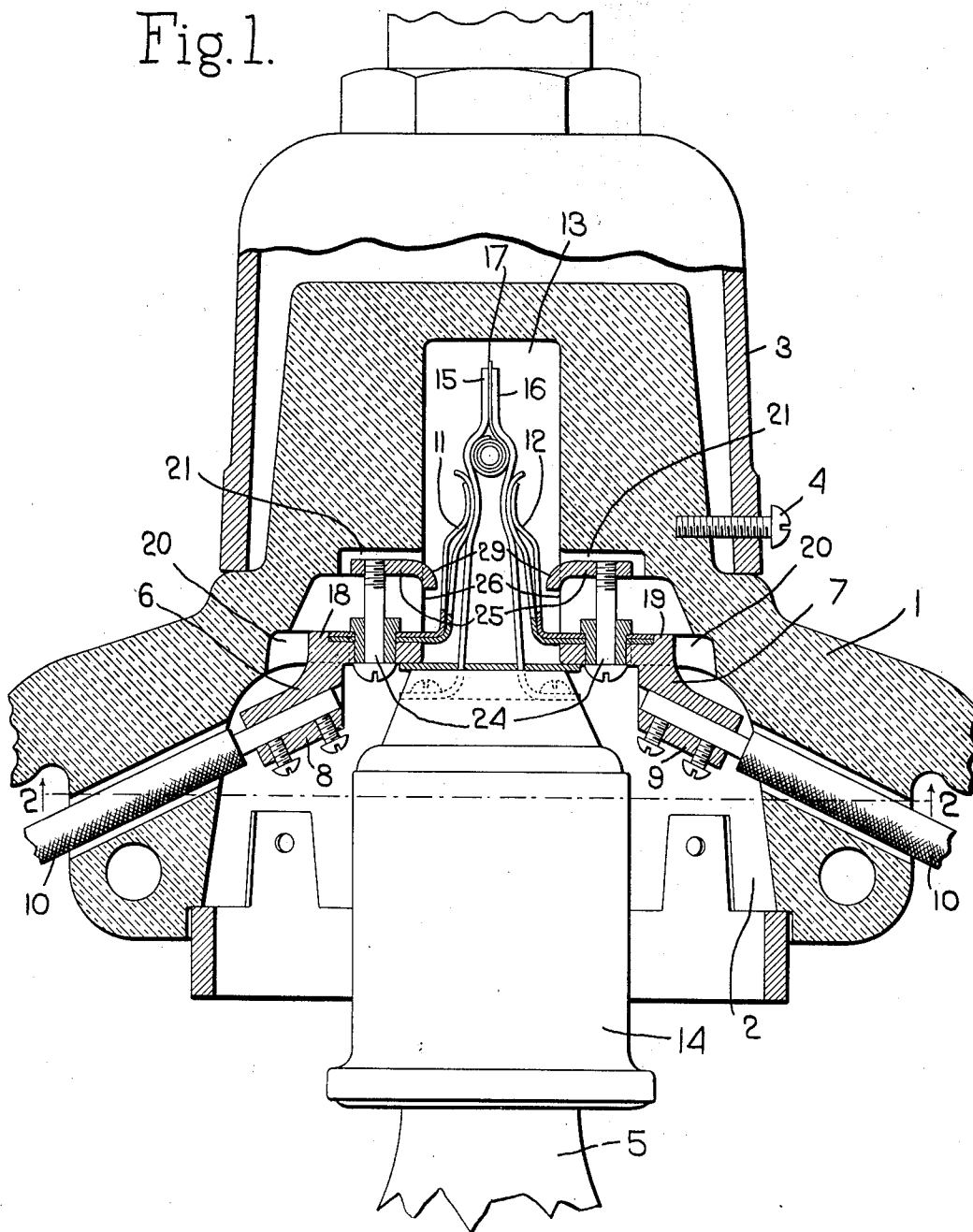
1,949,008

RECEPTACLE HEAD FOR ELECTRIC LIGHTS

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2 Sheets-Sheet 1

Fig.1.



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Fig. 2.

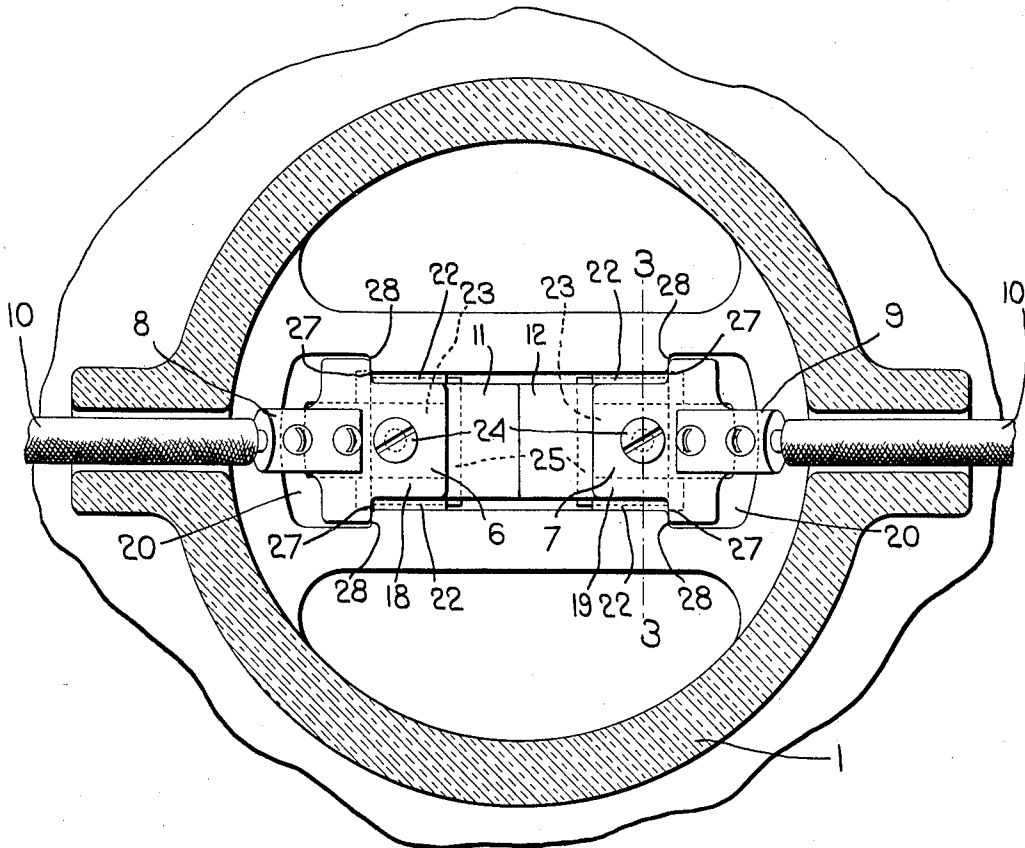
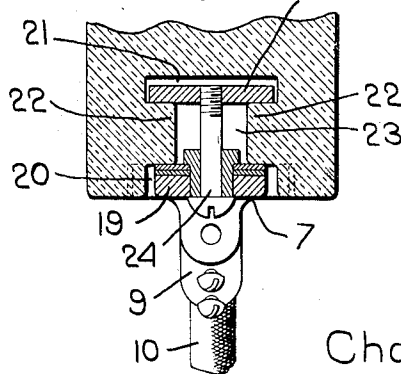


Fig. 3.



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UNITED STATES PATENT OFFICE

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RECEPTACLE HEAD FOR ELECTRIC LIGHTS

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6 Claims. (Cl. 173—328)

This invention relates to improvements in receptacle heads for electric lamps, and has for its principal object to provide a receptacle head of improved construction having means to securely lock the current conducting elements thereof to the insulated body in a manner to resist forces applied thereto of intensity equivalent to that of the shearing strength of the material out of which the insulated body is made.

A further object of the invention is to provide an attaching means for the current-carrying elements of the receptacle head which positively locks them against lateral displacement in all directions.

A further object of the invention is to provide a receptacle head, the elements of which are readily assembled.

Other objects and features will more fully appear from the following description in connection with the accompanying drawings and will be particularly pointed out in the claims.

In the drawings:

Fig. 1 is a vertical cross section through a device embodying the invention.

Fig. 2 is a horizontal cross section on line 2—2 Fig. 1.

Fig. 3 is a transverse section on line 3—3 Fig. 2.

In order to more clearly present the principles of the invention a particular embodiment thereof will be described. The receptacle head herein shown is of the type commonly employed in street lighting systems in which a plurality of lamps are connected in series with the source of current. The broad principles of the invention, however, may be applied to other types of receptacle heads.

The receptacle head herein shown comprises the usual body portion 1, preferably of porcelain, which is formed with the downwardly-opening chamber 2 in which is located the lamp receptacle or lamp socket 14 for the lamp 5. The body 1 is supported by the usual metallic cap or crown 3 which is secured to the upper portion thereof by means of a plurality of screws 4, the inner ends of which project into apertures in the body. The upper end of the cap 3 is provided with means for attaching the receptacle head to a bracket or other supporting device not shown.

The line wires 10 which supply the lamp 5 with current are secured to wire terminals 6 and 7. These terminals are formed with cylindrical end portions 8 and 9 in which are received the line wires 10. The wire terminals 6 and 7 are provided with the usual resilient contact extensions 11 and 12 projecting substantially vertically upward into a central extension 13 of the cham-

ber 2. The lamp socket 14 is supported detachably within the body by means of the extensions 11 and 12 which make yielding contact with the bayonet contact members 15 and 16 upon the base of the socket 14. The bayonet contacts 15 and 16 are electrically-connected to the filament of the lamps by means of the usual wiring connections. The bayonet contact members 15 and 16 are urged towards each other by their own resiliency as well as by the resiliency of the contact extensions 11 and 12 and are normally separated by means of a thin film 17 of insulating material. Such construction is usual in lamp sockets employed in the type of lighting system herein described. When the lamp filament breaks or burns out the full line voltage is impressed at the film 17 which breaks down, with the result that the circuit, which was disrupted by the breaking of the lamp filament, is again completed by the contact with each other of the ends of the bayonet extensions. The present invention relates particularly to the means provided to hold the wiring terminals 6 and 7 positively in position, which means is well adapted to resist any strains to which the terminals may be subjected, either by the constant pressure of the bayonet extensions 15 and 16, against the contact extensions 11 and 12, or by the operation of removing or replacing the socket 14 or by reason of any strains to which the line wires may be subjected.

The terminals 6 and 7 are provided with foot portions 18 and 19 which desirably are received in shallow recesses 20 formed in the top wall of the chamber 2, and are preferably disposed diametrically opposite each other. Directly above and communicating with the recesses 20 are formed T slots having their transverse portions 21 spaced an appreciable distance from the recesses 20 to present abutments 22 between which is situated the vertical portions 23 of the T slots. To secure the wiring terminals 6 and 7 in position, bolts 24 pass through the foot portions of the terminals, extend through the portions 23 of the T slots and have threaded engagement with the plates or nuts 25 located in the transverse portions 21 of the T slots. Other means of arranging a bolt and nut connection or any other clamping means may be used in the T slots to secure the terminals to the abutments 22.

For purposes of facilitating assembly and economical production the inner ends of the T slots open into the chamber extension 13. The transverse portions 21 of the T slots constitute pockets to receive the anchoring members 25, which pockets open into the chamber extension 13. To pre-

vent radially inward movement of the terminals along the T slots, means are provided to positively lock them against such movement. Such means may desirably be laterally-projecting shoulders 27 formed on the terminals which engage complementary shoulders 28 formed in the side walls of the recesses 20. To prevent radially outward movement of the terminals and their associated locking members the plates 25 are provided with shoulders 29 projecting from their inner edge and engaging the vertical faces 26 of the chamber extension 13 at the inner end of the T slots. The terminals are thus effectually locked against movement in any direction, and will be rigidly held in place notwithstanding the continued pressure of the bayonet members 15 and 16 against the contacts 11 and 12, or any strain to which the terminals may be subjected when the socket 14 is removed or replaced.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent is:

1. An electric light fixture comprising a receptacle head provided with a downwardly-opening socket-receiving chamber and an upwardly-directed extension thereof, said head also having two terminal-receiving recesses formed in the roof of said chamber and a T slot communicating with each recess and opening at its end into the chamber extension, a wiring terminal in each recess, an anchoring plate in the transverse portion of each T slot, and a clamping bolt extending through each terminal and the vertical portion of the corresponding T slot screw threaded into the corresponding anchoring member, thereby to clamp the terminal member in said recess.

2. An electric light fixture comprising a receptacle head provided with a downwardly-opening socket-receiving chamber and an upwardly-directed extension thereof, said head also having two terminal-receiving recesses formed in the roof of said chamber and a T slot communicating with each recess and opening at its end into the chamber extension, a wiring terminal in each recess, an anchoring plate in the transverse portion of each T slot, and a clamping bolt extending through each terminal and the vertical portion of the corresponding T slot screw threaded into the corresponding anchoring member, thereby to clamp the terminal member in said recess, the edges of the terminals and the sides of the recesses having interengaging shoulders to prevent movement of the terminals in the recess toward the chamber extension.

3. An electric light fixture comprising a receptacle head provided with a downwardly-opening socket-receiving chamber and an upwardly-directed extension thereof, said head also having two terminal-receiving recesses formed in the roof of said chamber and a T slot communicating with each recess and opening at its end into the chamber extension, a wiring terminal in each recess, an anchoring plate in the transverse portion of each T slot, and a clamping bolt extending through each terminal and the vertical portion of the corresponding T slot screw threaded into the corresponding anchoring member, thereby to clamp the terminal member in said recess, each anchoring member having a portion

to engage the side wall of the chamber extension thereby to prevent outward movement of each anchoring member and its corresponding terminal.

4. An electric light fixture comprising a receptacle head provided with a downwardly-opening socket-receiving chamber and an upwardly-directed extension thereof, said head also having two terminal-receiving recesses formed in the roof of said chamber on opposite sides of said extension, and a pocket to receive an anchoring member above each recess and communicating with said chamber extension, each pocket being connected with the recess by a vertical slot which also opens at its end into said chamber extension, a wiring terminal in each recess, an anchoring plate in each pocket, and a clamping screw extending through each wiring terminal and through to the corresponding vertical slot and having screw-threaded engagement with the corresponding anchoring member, whereby each terminal is clamped firmly in its recess.

5. An electric light fixture comprising a receptacle head provided with a downwardly-opening socket-receiving chamber and an upwardly-directed extension thereof, said head also having two terminal-receiving recesses formed in the roof of said chamber on opposite sides of said extension, and a pocket to receive an anchoring member above each recess and communicating with said chamber extension, each pocket being connected with the recess by a vertical slot which also opens at its end into said chamber extension, a wiring terminal in each recess, an anchoring plate in each pocket, and a clamping screw extending through each wiring terminal and through to the corresponding vertical slot and having screw-threaded engagement with the corresponding anchoring member, whereby each terminal is clamped firmly in its recess, each terminal having shoulders at its edges and each recess having shoulders at its sides to engage the shoulders of the terminal and prevent inward movement of the terminal in the recess.

6. An electric light fixture comprising a receptacle head provided with a downwardly-opening socket-receiving chamber and an upwardly-directed extension thereof, said head also having two terminal-receiving recesses formed in the roof of said chamber on opposite sides of said extension, and a pocket to receive an anchoring member above each recess and communicating with said chamber extension, each pocket being connected with the recess by a vertical slot which also opens at its end into said chamber extension, a wiring terminal in each recess, an anchoring plate in each pocket, and a clamping screw extending through each wiring terminal and through to the corresponding vertical slot and having screw-threaded engagement with the corresponding anchoring member, whereby each terminal is clamped firmly in its recess, each anchoring member having a lip to engage the wall of the chamber extension thereby to prevent outward shifting movement of said member in its pocket.

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