

LE ROY M. FULTON.
ELECTRIC WIRING TERMINAL.
APPLICATION FILED JUNE 19, 1918.

Patented July 15, 1919.

1,309,887.

Fig. 1.

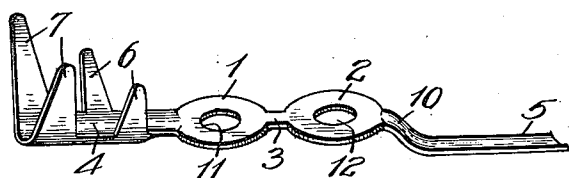


Fig. 2.

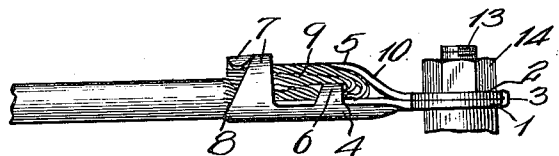
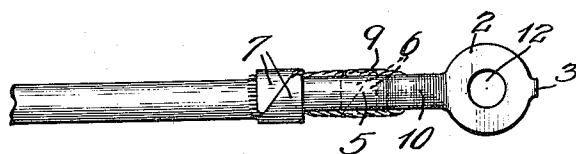


Fig. 3.



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UNITED STATES PATENT OFFICE.

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ELECTRIC-WIRING TERMINAL.

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1,309,887.

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To all whom it may concern:

Be it known that I, LE ROY M. FULTON, a citizen of the United States, residing at Des Plaines, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Electric-Wiring Terminals, of which the following is a clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to electric wiring terminals such as are employed in securing the ends of conductive wires to the binding posts of electric appliances.

The device is particularly adapted for heavy duty, the construction being such that the device may be constructed of relatively heavy stock and yet be easily attached without necessitating the use of special tools or solder, and is so designed as to have an equally large conductive capacity at all points particularly where the wire engaging elements join with the base by means of which the terminal is affixed to a binding post.

The construction and arrangement provides an ample contacting surface between the wire and the terminal attached thereto, the means by which the wire is held in contacting engagement with the terminal being adapted to resist pulling strains and to maintain the wire in contact with the terminal under a multiplied and resilient pressure whereby a perfect contact is insured under adverse conditions.

The preferred embodiment of the invention as disclosed herein contemplates a terminal of the above described character formed from sheet stock.

My invention has other characteristics and the invention in all its aspects will be fully described by reference to the accompanying drawings showing the preferred embodiment thereof and in which Figure 1 is perspective view of a wiring terminal of the above described character showing the same in its preferred form before it is attached to the end of a wire; Fig. 2 is a view in side elevation of the same attached to a wire and to a binding post; and Fig. 3 is a view in top plan elevation of the terminal attached to a wire as shown in Fig. 2.

Like characters of reference indicate like parts in the various views.

In the drawings 1 indicates a base which is preferably connected to an auxiliary base

2 by means of a narrow neck 3. An extension 4 is formed upon the base 1 and extends therefrom at a point diametrically opposite the neck 3, and a second extension 5 is formed with the base 2 and extends therefrom at a point diametrically opposite the neck 3. A pair of ears 6 is formed upon the extension 4, one ear extending from either side edge thereof, which ears are disposed preferably adjacent the base 1. A second pair of ears 7 is formed upon the extension 4, one ear extending from either side edge thereof, which ears are preferably disposed beyond said ears 6 relatively to the base 1, and are longer and heavier than the ears 6 for purposes hereinafter to be described.

In attaching the terminal to a wire, the wire 8 is laid upon the upper surface of the extension 4 to extend longitudinally of said extension and the ears 6 are bent over the wire to clamp the same thereon and to pass over the wire between the wire and the extension 5 when it is bent over to overlie the extension 4 as hereinafter described. Said ears 6 are preferably engaged with the wire so that an end section 9 of said wire extends beyond said ears toward the base 1. This end of the wire is then doubled back over the ears 6 to form a bight thereabout and to lie above the main section of the wire 8. After this operation the base 2 with its extension 5 is turned back upon the neck 3 to overlie the base 1. By reason of the diametrical relation of the extensions 4 and 5 with the neck, extension 5 overlies the extension 4 when the base 2 overlies the base 1, the wire 8 and the doubled back end 9 thereof lying between said extensions. The extension 5 is offset adjacent the base 2, as designated at 10, to provide space said extension 5 from said extension 4, when the extension 5 overlies the extension 4, to provide space for the wire 8 and the doubled over end 9 thereof and the ears 6 and to allow the base 2 to overlie the base 1 in adjacent parallelism therewith. After the base 2 and its extension 5 are disposed in relation with the base 1 and its extension 4, as just stated, the ears 7 are bent over the extension 5 to clamp the wire 8 and the doubled back end 9 thereof between the extension 4 and the extension 5. Figs. 2 and 3 show the terminal attached to the wire 8 in the manner just described.

The base 1 is preferably provided with an aperture 11 and the base 2 is provided with an aperture 12, which apertures are adapt-

ed to be disposed in concentric relation when the base 2 overlies the base 1 as hereinbefore described. These apertures are provided to allow the terminal to be attached to a binding post of usual construction, as shown in Fig. 2, which comprises a threaded and shouldered stud 13 and a nut 14 screw threaded thereon and clamping the composite base formed of base 1 and base 2 between said shoulder and said nut.

By reason of the above described construction it will be noted that I have provided a wiring terminal which, though it may be easily attached without the use of special tools or solder, has a large conductive capacity at all points particularly where the wire engaging element joins with the base, and it will be further noted that the construction and arrangement provides an ample contacting surface between the wire and the terminal attached thereto and that the contacting surfaces of the portion of the wire associated with the ears 6 and the terminal are under multiplied pressure due to the ears 7 exerting, by the coaction of the neck 3, or the stud 13 and the nut 14 forming the binding post, through the extension 5, a multiplied pressure upon the portion of the wire associated with the ears 6 by reason of the fact that the ears 6 passing between the two sections of wire between the extensions increase the height of the associated wires at this point. This arrangement affords a leverage, the extension 5 constituting the lever, the neck 3, or stud 13 and nut 14 forming the binding post, constituting the fulcrum, the ears 7 providing the force applied acting through the extension 5 to exert a multiplied pressure upon the portion of the wire associated with the ears 6. In addition the ears 6 cooperate to prevent the wire from being pulled out of engagement with the terminal, by reason of the fact that they are fixedly attached to the terminal and that they engage a bight formed in the wire which is maintained under pressure. It will be noted

further that the extensions 4 and 5 have more or less resiliency and the resilient pressure of the same aids in maintaining a perfect contact between the terminal and the wire under adverse conditions such as vibration, corrosion, and undue pressure applied to the terminal or wire. See Fig. 2 which illustrates the extensions 4 and 5 strained toward one another from their normal parallel relation.

While I have herein shown and particularly described the preferred embodiment of my invention I do not wish to be limited to the precise details of construction shown as changes may readily be made without departing from the spirit of my invention, but having thus described my invention I claim as new and desire to secure by Letters Patent the following:—

Claim:

A device of the character described including a base; two extensions secured thereto and adapted to overlie one another; means affixed to one of said extensions and disposed adjacent the base for engaging a wire, extending longitudinally of that extension, upon that extension and passing over the wire between the wire and the other extension and adapted to allow the wire to be doubled back over said means to form a bight thereabout between the extensions; and additional means adjacent the end of said extensions opposite said base to clamp the extensions together with the overlying sections of the wire therebetween, whereby the extensions are secured together at their ends with said first mentioned means and the associated bight portion of the wire disposed between them to afford a multiplied and resilient pressure upon the portion of the wire associated with said first mentioned means.

In witness whereof I have hereunto affixed my signature this 11th day of June, A. D. 1918.

LE ROY MYRON FULTON.