

No. 788,333.

PATENTED FEB. 21, 1905.

G. A. TOWER.
WIRE TERMINAL OR LUG.
APPLICATION FILED JULY 9, 1904.

Fig. 1.

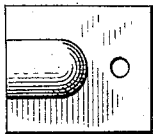


Fig. 2.

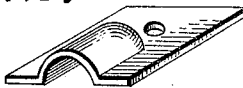


Fig. 3.

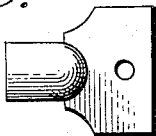


Fig. 4.

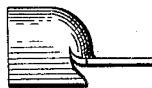


Fig. 5.

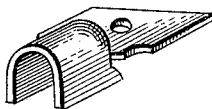


Fig. 6.

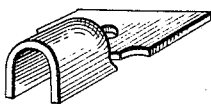


Fig. 7.

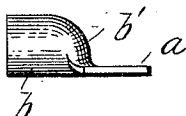


Fig. 8.

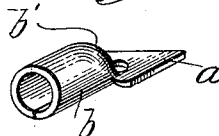
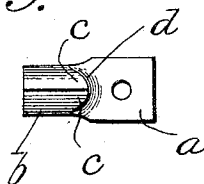


Fig. 9.



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UNITED STATES PATENT OFFICE.

GEORGE ARMS TOWER, OF HENRICO COUNTY, VIRGINIA, ASSIGNOR TO
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WIRE TERMINAL OR LUG.

SPECIFICATION forming part of Letters Patent No. 783,333, dated February 21, 1905.

Application filed July 9, 1904. Serial No. 215,966.

To all whom it may concern:

Be it known that I, GEORGE ARMS TOWER, a citizen of the United States of America, and a resident of the county of Henrico, State of Virginia, have invented certain new and useful Improvements in Wire Terminals or Lugs, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a plan view of the blank partly shaped; Fig. 2, a perspective view of the same; Fig. 3, a plan view of the blank in a further advanced condition; Fig. 4, a side elevation of the same; Fig. 5, a perspective view of the same; Fig. 6, a perspective view of the blank as it appears at a still further advanced stage of its manipulation; Fig. 7, a side elevation of a completed terminal or lug; Fig. 8, a perspective view of the same, and Fig. 9 a bottom view of the same.

This invention has relation to that class of tips or lugs which consist of a flat tail-plate provided with a hole for the passage of the fastening screw or bolt and having a barrel or socket formed integral with its forward edge for the reception of the end of the conductor, the conductor being in practice soldered in this barrel or socket.

The objects of the present invention are to cheapen the cost of production of the lug, improve its appearance, and increase its strength and rigidity in proportion to the amount of metal employed without in any way militating against its utility, as more fully hereinafter set forth.

The lug is formed by stamping and drawing an approximately rectangular piece of sheet metal. The first step in the process of manufacture is to form by stamping and drawing in suitable dies an upward-projecting semicylindrical part or bulge which is to form the upper half or wall of the barrel. This semicylindrical part is formed at the front edge of the plate, and sufficient metal is drawn up from the body of the plate to form a solid wall to close its rear end, as shown in Figs. 1 and 2. The hole for the fastening screw or bolt is formed at the same time.

To form the lower half of the barrel, the

parts of the plate at the opposite sides of the semicylindrical part are bent downward, as shown in Figs. 3, 4, and 5. To permit these wings to be thus bent without disturbing the tail-plate, outward-extending cuts are made in the plate from the rear end of the semicylindrical part to the respective opposite edges of the plate, as shown. Then by a further drawing operation the tail piece or plate is forced downward to thereby raise the barrel, as shown in Figs. 6 and 7, sufficiently to bring it entirely above the lower surface of the tail piece or plate when it is completed. To complete the barrel, the depending wings are curved inward toward each other until they meet in a central longitudinal line along the bottom of the barrel. After the tailpiece is thus forced farther downward with respect to the axis of the barrel it is trimmed to the desired size. It is obvious that this method of forming the lug may be carried out in as many distinct steps and with as many dies as may be found convenient, and, further, that the order of the steps may be varied without departing from the spirit of the invention.

The completed lug, as shown in Figs. 7, 8, and 9, consists, as has been stated, of the tail-plate *a*, provided with a screw-opening and having formed integral with its forward edge the barrel *b*, this barrel being open only at its forward end, where the conductor is inserted, its rear end being entirely closed by the rounded wall *b'*, of metal, drawn up from the body of the plate. As shown, ears *c* are formed at the rear ends of the wings, whose curved rear edges when the wings are bent inward into position will meet the curved shoulder *d*, formed at the juncture of the plate, and the lower end of the rounded closure-wall *b'*, and thereby entirely close the under side of the barrel.

A lug thus constructed may be manufactured at a minimum cost, will have graceful lines of contour which will render it eminently suitable for use on the better grades of electrical apparatus, and will be very rigid and strong in proportion to the amount of metal contained in it. A feature of importance lies in the peculiar manner in which the barrel is entirely

closed except at its mouth, this being the result of striking up the body of the barrel from the body of the plate in the peculiar manner described and drawing that portion of the metal connecting its rear end to the plate in such manner that notwithstanding the fact that the barrel lies above the plane of the lower face of the plate its rear end will be entirely closed by a wall, directly and integrally connecting it to the plate.

Another feature lies in bringing all the joints to the under side of the lug, where they will be entirely out of sight when the lug is fastened in place.

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

1. As an improved article of manufacture, a terminal for conductors comprising a tail-plate and a barrel formed integral therewith and lying in a plane above the lower face of the tail-plate, the rear end of the barrel being closed by a rounded wall formed integral with the barrel and the plate and the lower part of

the barrel consisting of a pair of inward-bent wings meeting along the under side of the barrel, said wings having rearward-extending ears meeting the curved shoulder formed at the junction of the plate and said rounded closure-wall.

2. As an improved article of manufacture, an electrical lug consisting of a tail-plate provided with a barrel projecting from its forward edge above the lower side of the tail-plate, said barrel being formed from wings bent up from the metal of the tail-plate and said wings being provided with rearward extensions which when bent into position meet each other and the tail-plate and entirely close the rear end of the barrel.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 1st day of July, 1904.

GEORGE ARMS TOWER.

Witnesses:

CHAS. C. BOWE,
W. T. HARRIS.