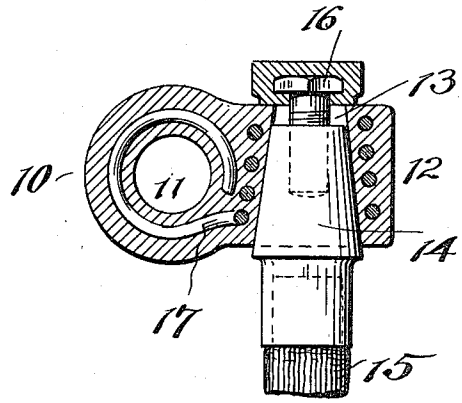
T. A. WILLARD.

STORAGE BATTERY CONNECTOR.

APPLICATION FILED MAY 13, 1915.

1,150,919. Patented Aug. 24, 1915.

Fig. 1.



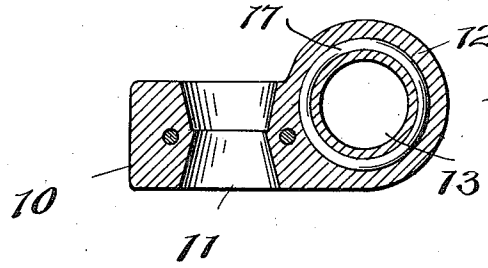
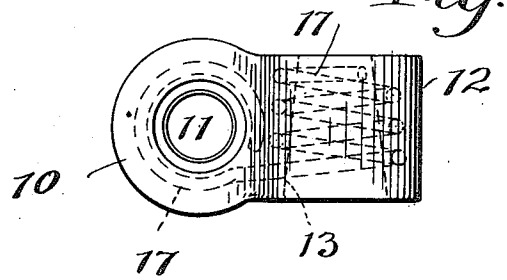


Fig. 2.

Fig. 3.



Witnesses.
E. B. Gilchrist
A. J. Hudson

Inventor
Theodore A. Willard
by Thurston & Kerr attys

UNITED STATES PATENT OFFICE.

THEODORE A. WILLARD, OF CLEVELAND, OHIO, ASSIGNOR TO THE WILLARD STORAGE BATTERY COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

STORAGE-BATTERY CONNECTOR.

1,150,919. Specification of Letters Patent. Patented Aug. 24, 1915.

Application filed May 13, 1915. Serial No. 27,735.

To all whom it may concern:

Be it known that I, THEODORE A. WILLARD, a citizen of the United States, and resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Storage-Battery Connectors, of which the following is a full, clear, and exact description.

This invention relates to a connector for storage batteries and has for its object to provide a connector which is efficient both from mechanical and electrical standpoints—that is has low resistance, and wherein good, secure contact may be obtained between the connector and the terminal of the conductor which is intended to be attached to it.

My invention may be briefly summarized as consisting in certain novel details of construction and combinations and arrangements of parts which will be described in the specification and set forth in the appended claims.

In the accompanying sheet of drawings wherein I have shown one embodiment of my invention, Figure 1 is a horizontal view through the connector with the terminal of the flexible conductor in elevation; Fig. 2 is a vertical sectional view of the same with the conductor removed; and Fig. 3 is a top plan view of the same, certain parts on the interior of the connector being shown by dotted lines.

This connector which is designed to be secured to one of the terminals of the storage battery includes a lead body portion 10 provided with a vertical socket 11, the upper and lower portions of which are preferably tapered in opposite directions. The lower tapered part of the socket is designed to receive the upper tapered end of a terminal post of the storage battery, while the upper tapered part of the socket is designed to be filled with melted lead when the connector and terminal post are lead burned together. At the side of the socket 11 is a lug or post 12, which is provided with a tapered socket 13 horizontally disposed or at right angles to the socket 11. This tapered socket is adapted to receive a correspondingly tapered terminal member 14 of a positive or negative flexible conductor 15, this terminal 14 being formed of brass or other good conducting material preferably coated with lead. The terminal 14 may be drawn tightly into the socket by any suitable screw, bolt or threaded devices, and in this case I have shown a screw 16 having a threaded shank which fits into the threaded socket of the terminal member 14 and having a lead covered head which is designed to bear against the end of the socketed boss or lug 12.

For the purpose of reinforcing the socketed parts 10 and 12, particularly the latter, so as to prevent spreading thereof by the tapered terminal members which are adapted to be fitted into the sockets, and for the further purpose of increasing the conductivity of the connector from one socketed part to the other, I embed in the connector a reinforcing and current conducting element in the form of a wire 16 having a portion which extends spirally several times around the socket 13 and another portion which is continuous with the first named portion and extends horizontally around the socket 11. This reinforcing and conducting element which may be formed of brass or other good conducting material is wholly embedded in the lead of the connector, and therefore is not subject to the corrosive action of the battery solution.

Having thus described my invention, what I claim is:—

1. A connector for storage batteries composed of a body having two sockets, one being a tapered socket, a tapered terminal member adapted to be fitted into the tapered socket, means for drawing the tapered terminal member into the said tapered socket, and a combined reinforcing and current conducting element embedded in the connector and extending around each of the sockets.

2. A connector for storage batteries composed of a body having two sockets, one being a tapered socket, a tapered terminal member adapted to be fitted into the tapered socket, means for drawing the tapered terminal member into the said tapered socket, and a combined reinforcing and current conducting element embedded in the connector and extending around each of the sockets, said reinforcing and current conducting element being wholly embedded in the connector.

3. A connector for a storage battery, comprising a body provided with two sockets, a tapered terminal member for a conductor in one of said sockets, means for drawing the same tightly into the said socket, and a

combined reinforcing and conducting element extending one or more times around one of said sockets, and thence extending around the other socket.

4. A connector composed of a body having a tapered socket for a tapered terminal, and means for reinforcing the socketed part comprising a member extending spirally several times around the socket, said member being wholly embedded in the body.

5. A connector composed of a body having two sockets, at least one of which is tapered to receive a tapered terminal and a combined current conducting and reinforcing element wholly embedded in the connector and extending spirally several times around the said tapered socket, and thence around the other socket.

6. A connector composed of a body having two sockets and a combined current conducting and reinforcing element wholly embedded in the body and extending a plurality of times around one of said sockets and thence through the body adjacent the other socket.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

THEODORE A. WILLARD.

Witnesses:
L. I. PORTER,
E. B. GILCHRIST.