No. 728,092. PATENTED MAY 12, 1903.

W. R. EDWARDS.

CONNECTOR FOR ELECTRICAL BATTERIES.

APPLICATION FILED MAR. 17, 1903.

NO MODEL.

Fig. 1

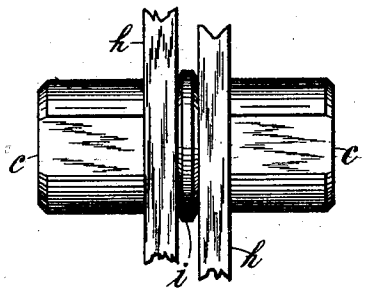


Fig. 2

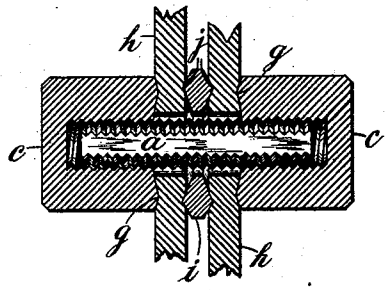


Fig. 3

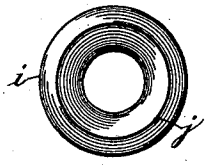


Fig. 4

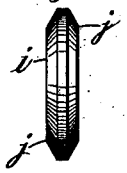


Fig. 5

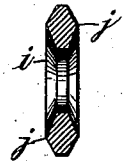
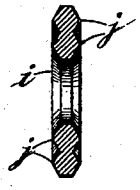


Fig. 6



Witnesses
Fred'k. Engleke
Geo. H. Graves

Inventor
William R. Edwards
by Wilkinson & Fisher
his Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 728,092. Patented May 12, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM ROWLAND EDWARDS, OF WEYBRIDGE, ENGLAND.

CONNECTOR FOR ELECTRICAL BATTERIES.

SPECIFICATION forming part of Letters Patent No. 728,092, dated May 12, 1903.

Application filed March 17, 1903. Serial No. 148,317. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ROWLAND EDWARDS, a subject of the King of Great Britain, of The Thames Valley Launch Company, Limited, Riverside Works, Weybridge, in the county of Surrey, England, have invented a new and useful Improvement in Terminals and Binding-Screws for Electric Batteries and Connections, of which the following is a specification.

My invention relates to an improvement in the invention for which I obtained a patent in the United States of America, dated May 7, 1901, and numbered 673,710, which consisted of a screw-threaded pin, a pair of interiorly-screw-threaded closed nuts or caps, the said nuts or caps being provided on their inner faces with an annular ridge or projection, and a pair of pliable washers, of conducting material, interposed between said closed nuts or caps and adapted to engage and conform with the surface of the inner faces of the nuts or caps and with the outer surface of leaden strips or plates forming the conductors to be held tightly together for making a non-corrosive connection. I have, however, found that in this construction there still remains some liability of acid or acid-vapor finding its way between the lead plates or terminals, however tightly they are drawn together; and the object of my improvement is to more completely prevent such admission of acid or acid-vapor between the leaden strips or terminals. I effect this object by the device illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a terminal of the kind described in the specification of my former patent already referred to. Fig. 2 is a longitudinal section through the same. Fig. 3 is a front view of the improved washer which I use between the lead strips or terminals. Fig. 4 is a side view, and Fig. 5 a section, of the washer. Fig. 6 is a section through a slightly-modified form of washer.

a is the brass or metal screw, passing freely through the leaden terminals or strips *h h* and holding them together by nuts *c c* of sufficiently hard incorrodible material, through which the screw *a* does not pass completely, the outer end at *c* being left solid, while the center part of the inner face of the nuts at *g* is left slightly raised, so that when the nut is screwed up its raised part is forced into the surface of the lead conducting plate or strip *h*, making an absolutely tight joint.

i is the improved form of washer which I use to prevent acid or acid-fumes from getting access to the screw *a* between the surfaces of the lead strips *h h*, *j j* being projecting annular ridges upon both sides of the washer, which are forced against and into the side of the lead strips *h h* when the nuts *c c* are screwed up. In Fig. 6 two concentric annular ridges *j j* are shown. Any desired number of concentric ridges may be made upon the sides of the washer.

What I desire to claim and secure by Letters Patent is—

The combination, in a terminal or binding-screw for electric batteries and connections, of conducting plates or strips *h*, *h*, washer *i* of hard conducting material having projecting annular ridges *j*, *j* upon both sides, and a screw *a* and nuts *c*, *c*, by which the ridges *j*, *j* upon the washer *i* are drawn tightly into the solid lead terminals *h*, *h*, substantially as set forth and shown.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

WILLIAM ROWLAND EDWARDS.

Witnesses:

ARTHUR G. EDWARDS,

J. L. HILDRETH.