

953,306.

Fig. 1,

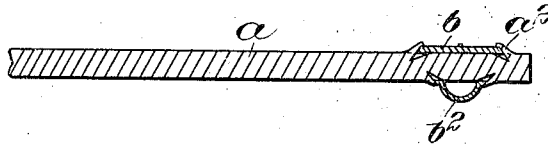


Fig. 2.

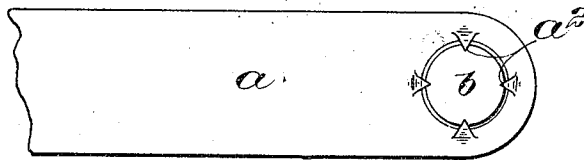


Fig. 3,

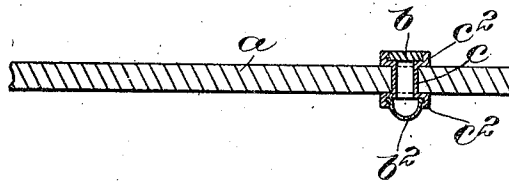
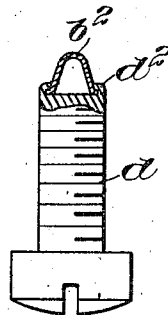


Fig. 4.



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UNITED STATES PATENT OFFICE

WALTER F. TAYLOR, OF BROOKLINE, MASSACHUSETTS, ASSIGNOR TO HOLTZER CABOT
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ELECTRICAL CONTACT.

953,306.

Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed February 5, 1907. Serial No. 355,798.

To all whom it may concern:

Be it known that I, WALTER F. TAYLOR, a subject of the King of Great Britain, residing in Brookline, in the county of Norfolk and State of Massachusetts, have invented an Improvement in Electrical Contacts, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

The present invention relates to an electrical contact, the purpose of the invention being to obtain a contact having a contact surface of platinum, at the same time employing the smallest amount of platinum possible, on account of the high cost of this material. Platinum is used in electrical contact members not on account of high conductivity, but because of its durability and capability of resisting oxidation and consequent insulation at the contact points. It is obvious, therefore, that a very small amount of platinum will answer the purpose, and that any excess of material which may be utilized in fastening the platinum to the main conducting part is practically wasted.

In accordance with the invention, I employ a very thin piece of sheet platinum which may be flat, if a flat contact is required, or of convex shape if a point is required, and I secure this thin sheet of platinum to the main conducting member by means of a flange or a series of projections formed in or connected with the main conducting member, and arranged to overlie the edge of the sheet of platinum. By this construction, the platinum is firmly secured in place, and the minimum amount of platinum is used, the structure, however, having all the advantages of a structure in which a portion of the platinum is utilized as a fastening part, such portion being superfluous so far as utility in operation is concerned.

Figure 1 is a longitudinal section of an electric contact piece embodying the invention; Fig. 2 is a top plan view of the same; Fig. 3 is a longitudinal section of a contact member showing a modification; and Fig. 4 is an elevation partly in section showing a still further modification.

Referring to Fig. 1, the conducting terminal member *a*, which may be of any suitable conducting material such as copper, is provided at the contact point with the platinum contact portion *b*, said portion, in accordance with the invention, consisting of a thin disk or sheet of platinum secured to the member *a* by means of clamping points *a*², or the equivalent therefor. This construction is suitable in cases where the opposite contact member is in the form of a point, so that a flat contact surface answers the purpose. Where, however, the other contact member is a flat surface so that a point or projection is required, the disk of sheet platinum may be convexed or formed in the shape of a cup, as indicated at *b*², so as to project beyond the flat surface of the member *a*. In either case the member *a* constitutes a metal base or support for the platinum.

In the construction shown in Fig. 1, the member *a* is cut or gouged to form the points *a*² which are bent back to admit of the insertion of the sheet of platinum, and subsequently bent back over the edge thereof, so as to hold the platinum firmly in place. It is practicable, however, and in some cases desirable, to provide for a continuous flange overlying the edge of the platinum disk, and in Fig. 3 I have shown the platinum holder as consisting of a tube *c* arranged to be inserted in an opening through the member *a*, and subsequently spread at the opposite ends so as to form, as indicated, a rivet-shaped member having upturned flanges *c*². After the platinum member *b* or *b*², or both, as indicated in the drawing, have been placed in position within the flanges *c*², the said flanges are upset or bent over so as to overlie the edges of the platinum members and hold the same firmly in position, the flanges being substantially the equivalent of the points *a*², Figs. 1 and 2.

As indicated in Fig. 4, the platinum member *b*² (or a flat sheet equivalent to the member *b*) may be set in the end of a rod or bolt *d* which is provided at the end with a cup for the purpose, the edges of the cup then being bent over, as indicated at *d*², to hold the platinum member in place. This construction is useful in cases where it is desirable to make the actual contact member adjustable with relation to the main contact arm, or in any case where the contact member is to be removable.

Claim.

In a contact for electric apparatus, a metal

base, tongues stamped out from said metal base, and having their ends bent up, a contact piece proper held on the metal base by the bent up ends of said tongues clasping the edges of the contact piece, the tongues being stamped out of that part of the metal base which is covered by the contact piece.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

WALTER F. TAYLOR.

Witnesses:

H. J. LIVERMORE,
JAS. J. MALONEY.