A. G. WILSON.
ELECTRIC TERMINAL POST.
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Fig. 1.

Fig. 2.

Witnesses:

Inventor

By its Attorney
UNITED STATES PATENT OFFICE.

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ELECTRIC TERMINAL POST.

No. 905,899.


Application filed October 10, 1907. Serial No. 396,723.

To all whom it may concern:

Be it known that I, ASBURY G. WILSON, a citizen of the United States, residing at Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Electric Terminal Posts, of which the following is a specification.

My invention relates to electric terminal posts, and, by an electric terminal post I mean a post contained in and forming part of an electric circuit and carrying a carbon contact against which a movable contact is pressed and withdrawn at intervals.

I will describe an electric terminal post embodying my invention and then point out the novel features thereof in claim.

In the accompanying drawing figures 1 and 2 are end and side elevations of an electric terminal post embodying my invention. Similar letters of reference designate corresponding parts in both figures.

Heretofore in electric terminal posts, and especially those used in relays for railway switch and signal work and which comprise a carbon or graphite contact against which a moving metallic or other contact was pressed and withdrawn at intervals, solder was employed to hold the carbon or graphite contact in the socket. In the present invention the socket was provided for it, and the moving contact engaged the projecting end of the carbon or graphite. After some use of a terminal post, the moving metallic contact constantly engaging the end of the carbon or graphite post produced an amount of wear which not only impaired the efficiency of the post, but in some cases caused the moving contact to be held against the carbon or graphite and when it should have moved away from it. With the carbon or graphite contact soldered in its socket, it was difficult to change the position of the carbon or graphite to avoid having the moving contact engaging the worn part. In my invention, the carbon or graphite contact is mechanically held in the post, and the moving contact is brought into engagement with the side surface of the carbon or graphite contact as distinguished from the end surface. The mechanical holding of the carbon or graphite contact permits of the contact being changed or turned so as to present new surfaces with which the moving contact can engage, and the cylindrical surface affords more surface which may be used than is afforded by the end of the carbon or graphite pin.

Referring now to the drawing A designates a post of some suitable metal and provided with some means, as, for example, a screw thread a or arranged on it in such manner as to support the post in some suitable base. The post may be of any desired shape according to the purpose for which it is intended. In any event it is provided with a pair of spring jaws a', a" each of which is formed or provided with a curved face a' to receive a carbon or graphite contact B. The contact B is held between the spring jaws a', a", and as shown in the drawing some means is preferably provided, as, for example, a screw a' for drawing the jaws a', a" together thereby securely clamping the contact B between them. As shown in the drawing the post is provided with an enlarged end portion, the jaws a', a" being formed by cutting a groove a' therein. As shown the jaws a', a", do not entirely surround the carbon contact B, and thus a portion of the peripheral surface of the carbon is left exposed between the ends of the jaws.

C designates the moving contact which is moved by some suitable means into and out of engagement with the exposed surface of the contact B.

My invention may be used to considerable advantage in relays for railway signal and switch purposes, for in such relays the moving contact C which is generally a spring contact, is carried by the armature, and the spring of the contact is depended upon in some measure to move the contact away from the carbon contact B when the armature is no longer attracted by its magnet. Obviously if the moving contact wears the carbon contact to any degree (which is often the case) the amount of spring available to move the contact C away from the contact B is lessened. The armature is also permitted to move closer to its core by reason of the wear on the contact B. In some cases it has been found that where the carbon contact has become worn, and the armature brought closer to its core than was originally intended, residual magnetism would hold the armature against the core and thus the contact C would be held against the contact B when it should have moved away. Also the solder used for securing the carbon in its socket required acid to make it effective, and...
it has been found that this acid in time leaks out onto the moving contact and corrodes it. By my invention as soon as the carbon contact becomes worn the screw \( a \) is loosened so that the carbon may be turned to present a new surface with which the moving contact engages.

Having thus described my invention, what I claim as new is:

1. An electric terminal post comprising a pair of spring jaws, a cylindrical carbon contact partially inclosed by said jaws to leave a portion of its peripheral surface exposed, and mechanical means for adjustably holding the contact between the spring jaws, combined with a movable contact supported to be moved into engagement with said exposed surface.

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

ASBURY G. WILSON

Witnesses:

T. G. SCHUEDER,
T. H. PATENALL.