

(No Model.)

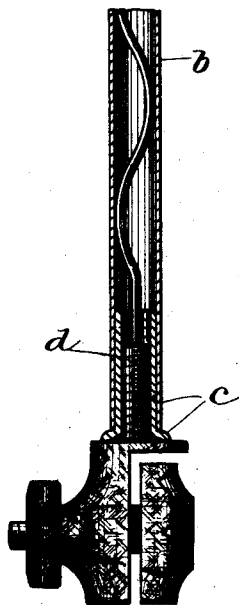
C. E. SCRIBNER.
CARBON ROD FOR ARC LAMPS.

No. 423,637.

Patented Mar. 18, 1890.



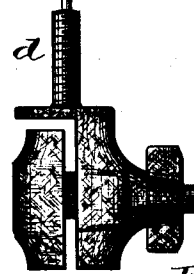
Fig. 1.



Witnesses: a
Chas. G. Hawley
Chas. Woodworth



Fig. 2.



Inventor:
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UNITED STATES PATENT OFFICE.

CHARLES E. SCRIBNER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN ELECTRIC COMPANY, OF SAME PLACE.

CARBON-ROD FOR ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 423,637, dated March 18, 1890.

Application filed July 3, 1888. Serial No. 278,916. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SCRIBNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Electric Connections for Carbon-Clamps of Electric Lamps, (Case 150,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

In electric-arc lamps the carbon-clamps are connected with the rods in such manner that they may be detached and new ones supplied in case any of the clamps should be burned up, as not infrequently happens. A joint is therefore required between the clamp proper and the rod in each lamp. The fumes of the burning carbon and copper coating act upon the joint between the clamp proper and the rod, so that often the joint becomes corroded or oxidized, thus abnormally increasing the resistance of the circuit.

The object of my invention is to provide for bridging over this joint in such manner that under no circumstances will abnormal resistance be introduced into the circuit by the corroding of the joint.

My invention consists in a wire securely connected with the clamp proper and extending up into the inside of the tube which forms the rod, the wire being bent so as to form sure sliding contacts with the interior of the rod.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view of the clamp and rod of an electric-arc lamp provided with my device for bridging over the joint between the clamp and the rod. Fig 2 is a view showing the bent wire connected with the clamp and ready to be inserted into the tube which forms the rod.

Like parts are indicated by similar letters of reference throughout the different figures.

The clamp or metallic piece *a* is provided with two jaws of well-known construction and a thumb-screw for opening and closing the same. The rod *b* is a tube, preferably of copper or brass. This tube at its lower por-

tion is re-enforced by a sleeve *c*, which is provided with an interior thread. This sleeve *c* may be brazed into the tube. The clamp is attached to the tube by means of the screw *d*, which is provided with the clamp and turned into the sleeve *c*, as shown in Fig. 1. The joint thus made between the clamp and the rod, as before stated, frequently becomes corroded, and my invention consists in providing the wire *e*, which is silver soldered or brazed into the screw *d* and bent, as shown, so that when inserted into the tube or rod connection will be made between the wire *e* and the interior of the tube *b*, preferably at several points above the joint. In this manner, though the joint between the clamp and the rod may become corroded, still the electrical connection will be maintained unimpaired by means of the contacts between the wire *e* and the interior of the tube, the resiliency of the wire *e* being such that when it is inserted inside the tube it will constantly press against the interior of the tube at several points above the joint.

I have described my invention in connection with the clamp and rod of an electric lamp. It is evident, however, that it may be used wherever it is found desirable or necessary to bridge over a joint, especially such joints as are liable to become corroded.

As to the prior state of the art, reference is made to Patent No. 286,953, granted Otto A. Moses October 16, 1883, in which the upper carbon is suspended loosely from the carbon-rod upon a spiral spring, this spiral spring being used to make good contact for conveying the current. The spiral spring, however, is not bent so as to come in contact with the interior of the tube to bridge over electrically the joint between the rod and the clamp, nor is the tension of the spring such that it will be expanded by its own resiliency to make connection with the interior of the tube.

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

1. The combination, with a tube forming the rod, of the carbon-clamp detachably connected therewith, and a wire extending from the clamp inside the tube which forms the rod,

said wire being bent so as to come in contact with the interior of the tube to bridge over electrically the joint between the rod and clamp, substantially as and for the purpose
5 specified.

2. The combination, with a tube and a metallic piece removably connected therewith, of a wire permanently attached to said metallic piece and extending upwardly into the
10 tube, and expanded by its own resiliency to

form one or more contacts with the interior of the tube to electrically bridge over the joint between the rod and the metallic piece, substantially as described.

In witness whereof I hereunto subscribe my name this 19th day of May, A. D. 1888. 15

CHARLES E. SCRIBNER.

Witnesses:

GEORGE P. BARTON,

CHAS. C. WOODWORTH.