

(No Model.)

F. BAIN.
CARBON FOR ARC LAMPS.

No. 284,939.

Patented Sept. 11, 1883.

Fig. 1.



Fig. 2.



Fig. 3.



Witnesses:
F. L. Bunnell
L. F. Deleher.

Inventor:
Fores Bain
By atty J. M. Crowl & Co.

UNITED STATES PATENT OFFICE.

FOREÉ BAIN, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO THE BAIN
ELECTRIC COMPANY, OF CHICAGO, ILLINOIS.

CARBON FOR ARC-LAMPS.

SPECIFICATION forming part of Letters Patent No. 284,939, dated September 11, 1883.

Application filed November 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, FOREÉ BAIN, a citizen of the United States, residing at Minneapolis, Hennepin county, Minnesota, have invented certain new and useful Improvements in Carbons for Arc-Lamps, of which the following is a specification.

My invention relates to certain improvements in carbons for arc-lamps.

Previous to my invention great inconvenience has resulted from the axial displacement of the carbons and the slipping by and wedging of the same to such extent that when the lamp is hoisted into position the automatic adjustment of the carbons cannot take place. This inconvenience is especially great in that class of lamps in use upon towers of considerable altitude, as the knowledge of false adjustment is only acquired at the time when it is desired to light the lamps.

The object of my invention is to provide against such misplacement and wedging of the carbons and secure absolute adjustment axially; and with this end in view my invention consists, broadly, in the idea of furnishing the end of the carbon with a surrounding and longitudinally-projecting collar or ring of fusible non-conducting material adapted to allow adjacent carbons to move freely toward or from each other longitudinally, and at the same time serve as an absolute guide to perfect axial adjustment, as will be hereinafter more fully set forth.

In order that those skilled may know how to make and use my invention, I will describe the same in detail, referring by letters to the accompanying drawings, in which—

Figure 1 is a plan view of an ordinary carbon with my improved collar attached; Fig. 2, a similar view of two such carbons held in proper relation by reason of the presence of such collar, and Fig. 3 is a longitudinal section taken at *xx* of Fig. 2.

Similar letters denote the same parts in both figures.

A represents an ordinary carbon, to the pointed end of which is secured, by paste or in any other suitable manner, a collar consisting of one or more coils of ordinary paper, or any other non-conducting material capable of being readily fused when the current is established for producing light. It will be observed that the collar B extends beyond the

end of the carbon to which it is secured a sufficient distance to receive, guide, and hold the end of the adjacent carbon, so that in adjusting the said carbons before elevating the lamp into position it is only necessary to enter the free end carbon slightly within the collar B on the end of the other carbon, and the proper axial relation of the two is then established and maintained by the collar, which is fused and destroyed when the lamp is lighted and after it has served its purpose. It will be understood that the collar may be applied to either one of the carbons, and that it is only necessary to apply it to one.

I do not wish to confine myself to any particular manner of connecting the collar to the carbon or to any particular material for the collar, though I prefer to make one or more coils of ordinary paper prepared with mucilage or to use liquid mucilage with non-coated paper. Nor do I wish it to be understood that it is essentially necessary that the collar should be absolutely and rigidly attached to the end of the carbon, as it may be held in place sufficiently well by friction only. Nor do I wish to be confined to a continuous tube, as it is obvious that a guide accomplishing the same purpose may be made of two or more straight or slightly-flared arms; but I prefer the tube described as the more sensible plan of carrying out my idea.

The gist of my invention does not rest in the details, but in the broad idea of providing either one of the carbons with a collar, tube, or guide of such length and in such manner that said tube will serve as a guide to direct and hold the positive and negative carbons in proper relation to avoid the inconveniences hereinbefore referred to.

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

A carbon for arc-lamp, provided at the end with a projecting non-conducting fusible guide, adapted to receive, direct, and support the end of an adjacent carbon, substantially as and for the purpose set forth.

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

FOREÉ BAIN.

Witnesses:

F. L. BROWNE,
A. B. BROWNE.