

(No Model.)

G. G. STOUT.
ELECTRIC ARC LAMP.

No. 524,003.

Patented Aug. 7, 1894.

Fig. 1.

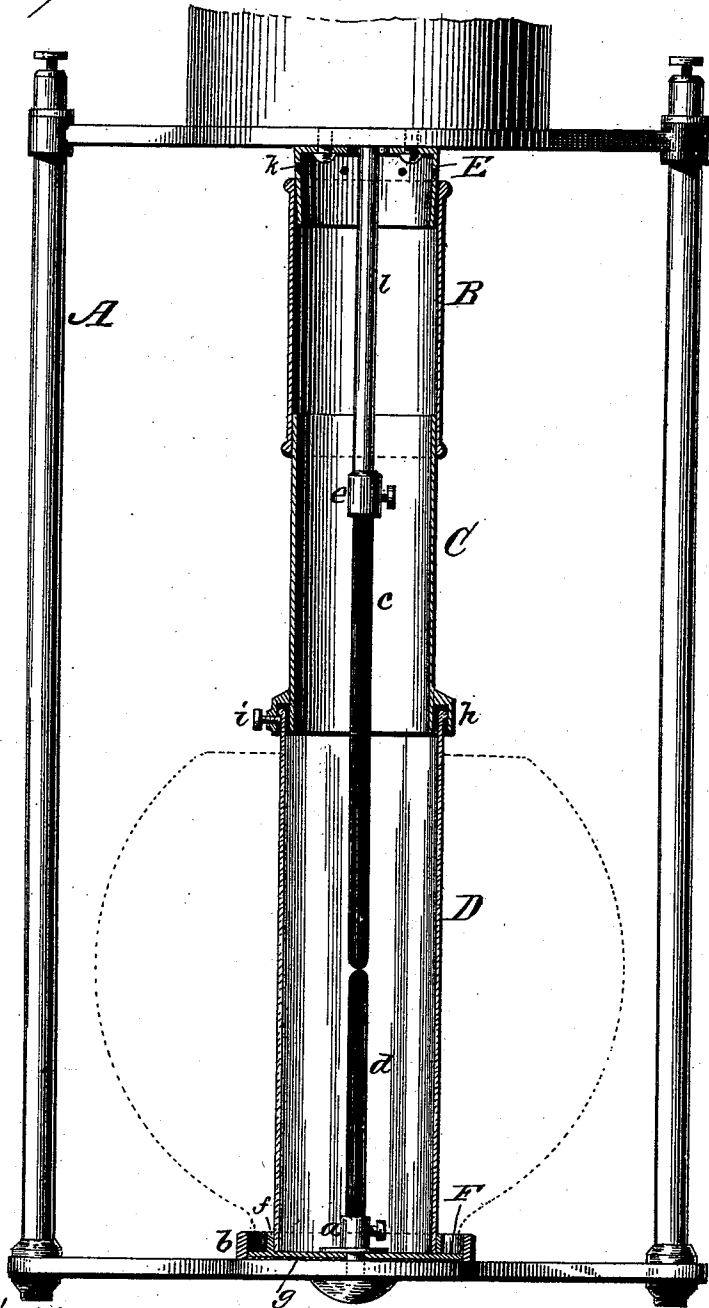
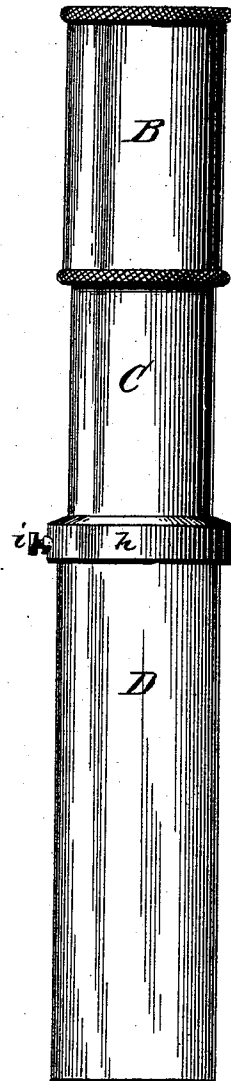


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE G. STOUT, OF PARKERSBURG, WEST VIRGINIA.

ELECTRIC-ARC LAMP.

SPECIFICATION forming part of Letters Patent No. 524,003, dated August 7, 1894.

Application filed June 19, 1894. Serial No. 515,022. (No model.)

To all whom it may concern:

Be it known that I, GEORGE G. STOUT, a citizen of the United States, residing at Parkersburg, in the county of Wood and State of West Virginia, have invented certain new and useful Improvements in Electric-Arc Lamps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide an electric arc-lamp with means for excluding the air and drafts from the carbons to that extent as will enable a more perfect and steady light to be obtained with an increased volume as well as economy in the use of carbons, which objects are attained by the device substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings represents a side elevation of an electric arc-lamp showing the globe in dotted lines and the device constituting my invention in vertical section; Fig. 2 a side elevation of the device removed from the lamp.

In the accompanying drawings A represents the usual frame for supporting the lamp which may be of the ordinary construction and *a* the bottom carbon holder and *b* the usual band for holding the globe, said globe being shown in dotted lines.

The device which constitutes my invention consists of the three tubular sections B C D, the upper section B being telescoped upon the upper end of the middle section C and held in place by frictional contact with a cylindrical tapering coupling E secured by screws or any other preferred manner to the upper portion of the frame A. These several tubular sections inclose the carbons *c* *d*, the upper one of the carbons being retained in position by the usual holder *e*. The lower section D may be the same diameter throughout its length as shown in the drawings, or may have a swell or bulge at its center or suitably enlarged as found most desirable. The section D is constructed of glass and of sufficient height to reach above the point where the carbons meet so that the light will not be obstructed. This tubular section rests upon a supporting plate F which has an upwardly

extending retaining flange *f* therefor, and an insulator *g* is interposed between the plate and the bottom of the frame A. The tubular sections B C are constructed of metal or of any other material found most preferable, the former mentioned section having a suitable coupling for detachably connecting it to the section D at its upper end, said coupling in the present instance consisting of a circumferential flange *h* to overlap the edge of the glass section and connected thereto by a set-screw *i*. The upper section is held in position by frictional contact with the cylindrical tapering coupling E, the coupling being made tapering for this purpose so that a tight fit of the section upon the coupling will be secured sufficient to hold the section suspended to form a continuous tube of the three sections.

The coupling E may have perforations *k* for the escape of the accumulated gas instead of passing up into the works of the lamp. When it is desired to renew the carbons, the section B is slipped down over the section C to enable the rod *l* of the carbon-holder *e* to be raised up into the body of the lamp by catching hold of the rod with the fingers.

When the rod *l* is raised sufficiently to elevate the carbon *c* so that its lower end will be above the top of tubular section B, the several tubular sections may be removed to admit the renewal of the carbons.

The several tubular sections provide an inclosure for the carbons that will prevent to an extent the air from interfering with the light that is generated.

The upper and lower ends of the tube formed by the sections herein described are closed so as to exclude the air and drafts from the carbons to that extent as would enable a greater steadiness of light to be obtained with an increased volume.

The circulation of air through the tubular section being prevented by the closing of both top and bottom has the advantage of the saving of carbon as well as providing a perfect spark-arrester in confining the sparks thrown off by the carbon-points within the tube.

A further advantage in the inclosure for the carbons formed by the tubular sections, is that the dust thrown off by the consumption of the carbons will be confined in the tubular sections and prevented from coming in

contact with any object, thereby enabling the lamp to be used in stores and other inclosed places where it has heretofore been excluded on account of the fine particles of carbon escaping into the atmosphere and lodging upon goods in a store or upon other objects that would cause damage thereto.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

An inclosure for the carbons of an electric arc lamp, consisting of a stationary tubular section of transparent material, a tubular sec-

tion detachably connected thereto by means of a suitable coupling, and a tubular section slidable thereon, and a tapering tubular coupling for holding suspended the slidable section, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE G. STOUT.

Witnesses:

FINIS D. MORRIS,
WM. H. DE LACY.