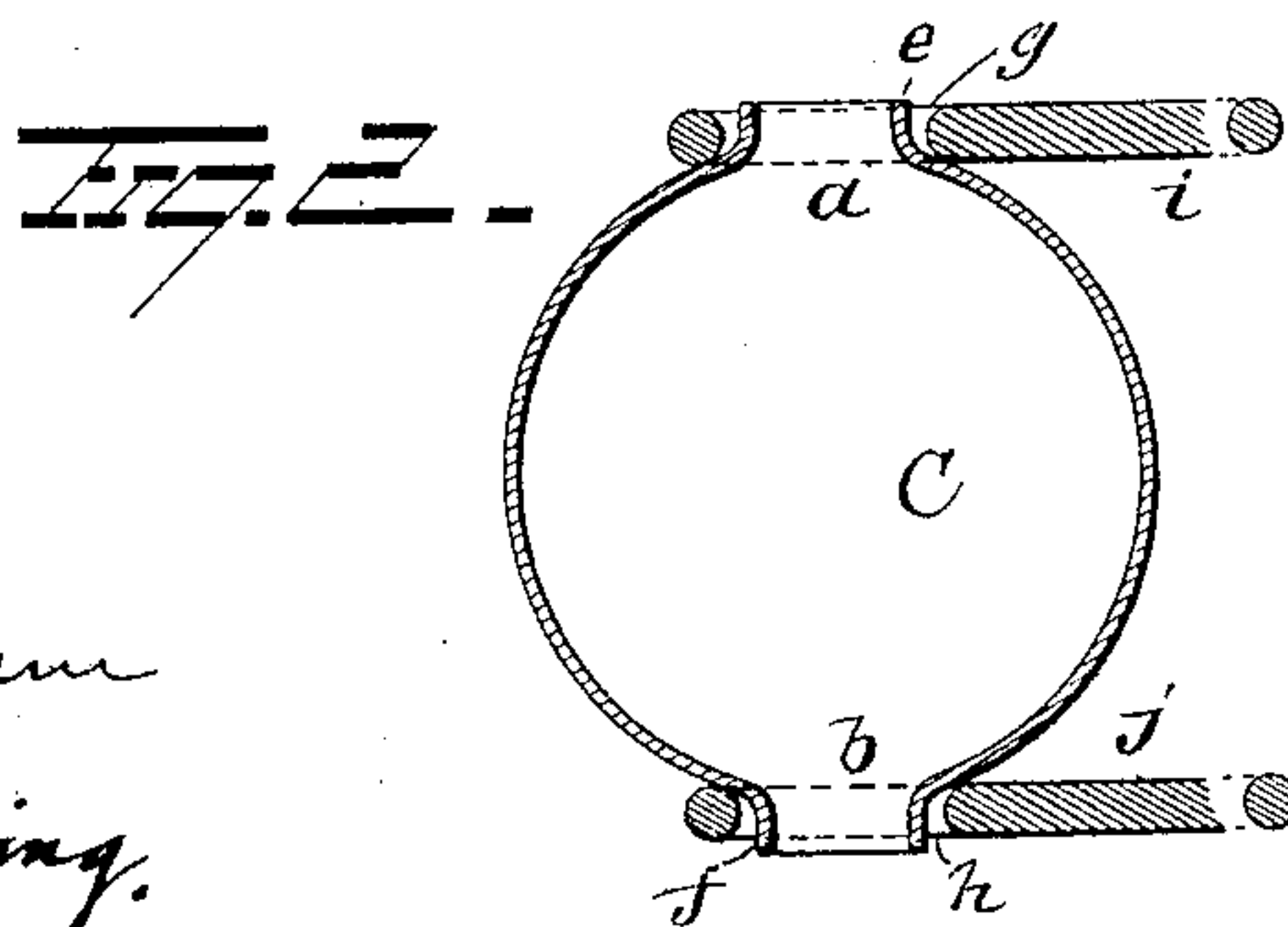
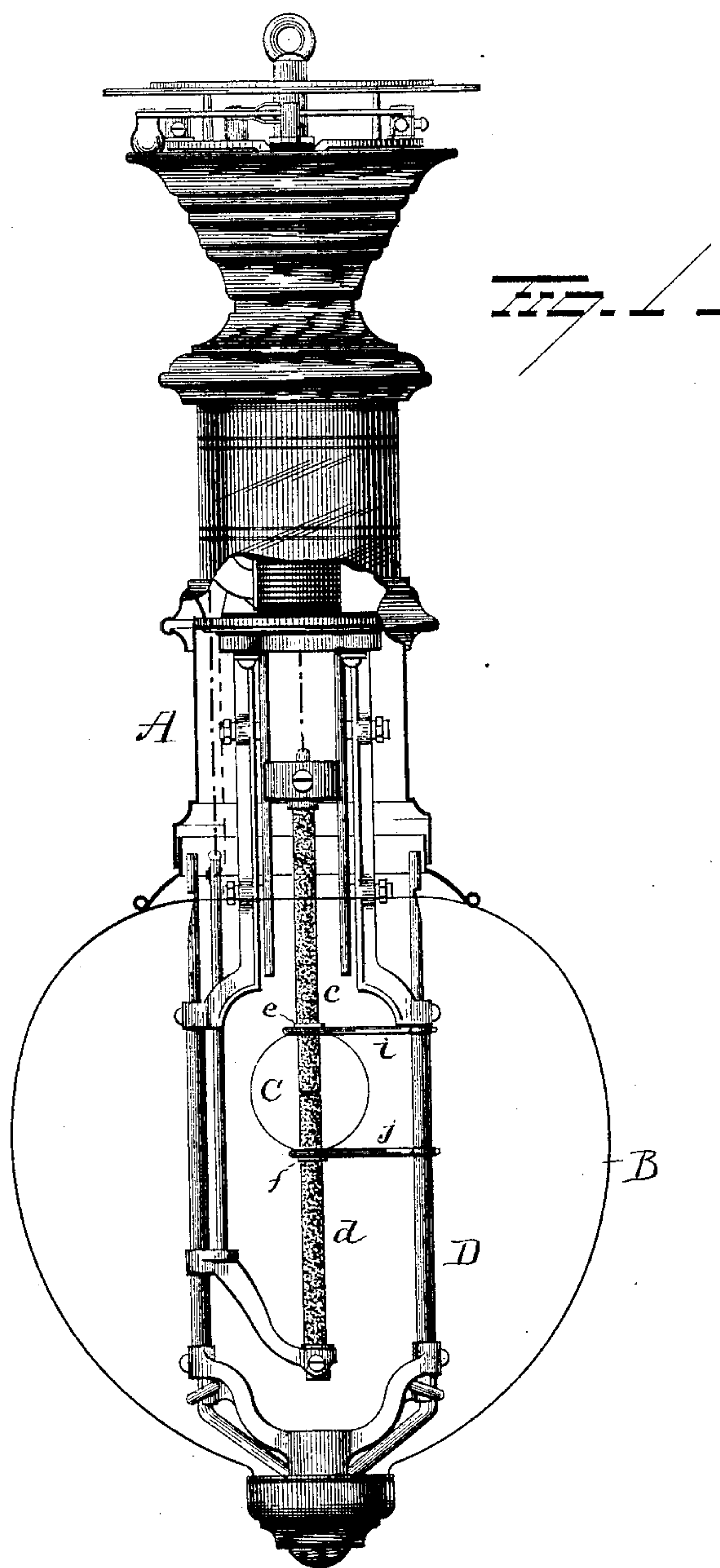


(No Model.)

G. R. LEAN.
ELECTRIC ARC LAMP.

No. 598,943.

Patented Feb. 15, 1898.



Witnesses
E. J. Nottingham
G. F. Downing.

Inventor
G. R. Lean
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Attorney

UNITED STATES PATENT OFFICE.

GEORGE R. LEAN, OF CLEVELAND, OHIO; JOTHAM POTTER, ADMINISTRATOR
OF SAID LEAN, DECEASED, ASSIGNOR TO THE JANDUS ELECTRIC COM-
PANY, OF SAME PLACE.

ELECTRIC-ARC LAMP.

SPECIFICATION forming part of Letters Patent No. 598,943, dated February 15, 1898.

Application filed February 20, 1897. Serial No. 624,331. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. LEAN, a resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Electric-Arc Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in electric-arc lamps of the inclosed arc type and in which both carbons are adapted to be fed so as to produce what is known in the art as a "focusing-lamp," the invention relating more particularly to the construction of the arc-inclosing globe and the manner of supporting the same.

The object of my invention is to so construct and arrange the globe for inclosing the arc of a focusing electric-arc lamp that the respective carbons can be readily fed freely and snugly through both ends of said globe without the necessity for covers.

A further object is to so construct the inner globe of an arc-inclosed electric-arc lamp that the carbons can be fed snugly through both ends thereof and to so mount the globe that its movement will be permitted in all directions, whereby to compensate for any irregularities of the carbons.

With these objects in view the invention consists in an arc-inclosing globe for an electric-arc lamp having openings in both ends, both openings being of such size as to permit the free feed but snug fit of both carbons of the lamp.

My invention further consists in the combination, in an electric-arc lamp, of an arc-inclosing globe having openings in both ends for the feed of the carbons, the wall of each opening being adapted to snugly hug the carbon passing through it, and means for supporting said globe in such manner as to permit the globe to have sufficient play to compensate for irregularities of the carbons.

My invention further consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of an arc-inclosed focusing electric-arc lamp having my improvements applied thereto. Fig. 2 is an enlarged detail sectional view.

A represents a focusing electric-arc lamp constructed with a large outer globe B and a small inner or arc-inclosing globe C. The inner or arc-inclosing globe C is preferably made spherical in form and is provided in its upper and lower ends with holes *a b*, respectively, for the passage of the respective carbons *c d* of the lamp, through which holes the carbons pass freely but sufficiently snug to prevent the admission of any appreciable amount of air into the globe. The globe C is provided at its ends contiguous with the openings *a b* with short necks or enlargements *e f*, which enter, respectively, holes or openings *g h* in arms *i j*, projecting from the framework D of the lamp. The weight of the globe is sustained by the lower arm *j*, while the arm *i* assists in sustaining the globe in its upright position. The openings *g h* of the arms *i j* are made somewhat larger than the necks or enlargements *e f*, so that the globe can have sufficient spherical movement to compensate for any irregularities there might be in the carbons passing through the openings in the respective ends of the globe.

My improvements are simple in construction, permit the use of an arc-inclosing globe in a focusing-lamp, and are effectual in all respects in the performance of their functions.

Slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope, and hence I do not wish to limit myself to the precise details herein set forth.

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

1. In an electric-arc lamp, the combination with the upper and lower carbons and regulating mechanism for feeding both carbons simultaneously, of an arc-inclosing globe constructed with contracted openings at its opposite ends, said openings being of such size as will cause the carbons to snugly fit within the walls of each opening and means for supporting the globe which will permit its oppo-

site ends to move laterally and compensate for irregularities of the carbons, substantially as set forth.

2. The combination in an electric-arc lamp, 5 of an arc-inclosing globe having openings in both ends for the feed of the carbons, the wall of each opening being adapted to snugly hug the carbon passing through it and means for supporting said globe in such manner as 10 to permit the globe to have sufficient play to compensate for irregularities of the carbons, substantially as set forth.

3. The combination with the frame of an

electric-arc lamp, of arms projecting there- 15 from having openings and a globe for inclosing the arc, supported by said arms and having portions entering said openings and adapted to have play therein, substantially as set forth.

In testimony whereof I have signed this 20 specification in the presence of two subscribing witnesses.

GEORGE R. LEAN.

Witnesses:

J. M. SEE,

D. W. ROCKWELL.