

(No Model.)

J. E. CRIGGAL.
ELECTRIC INCANDESCENT LAMP.

No. 518,179.

Patented Apr. 10, 1894.

Fig. 1.

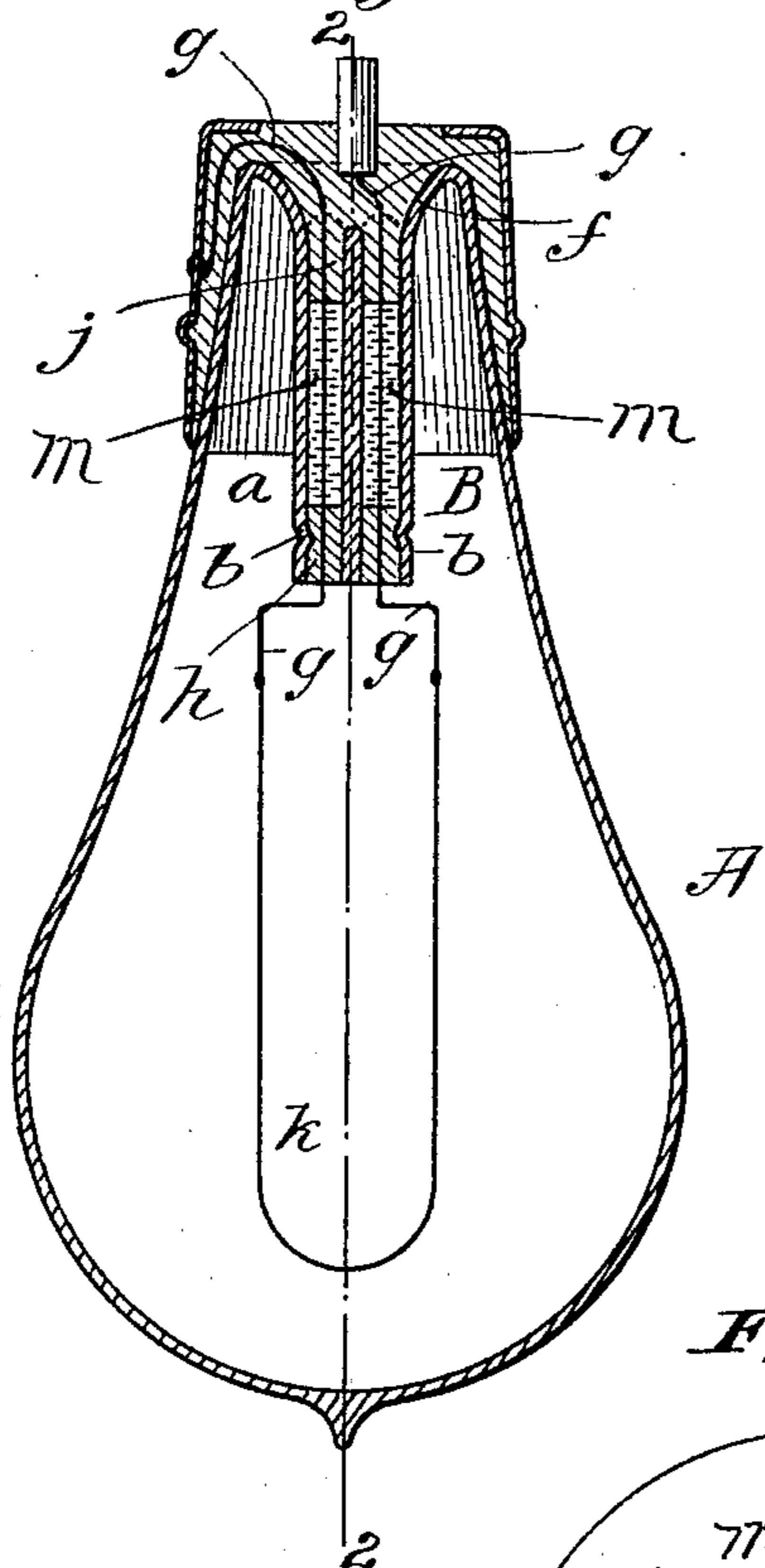


Fig. 2.

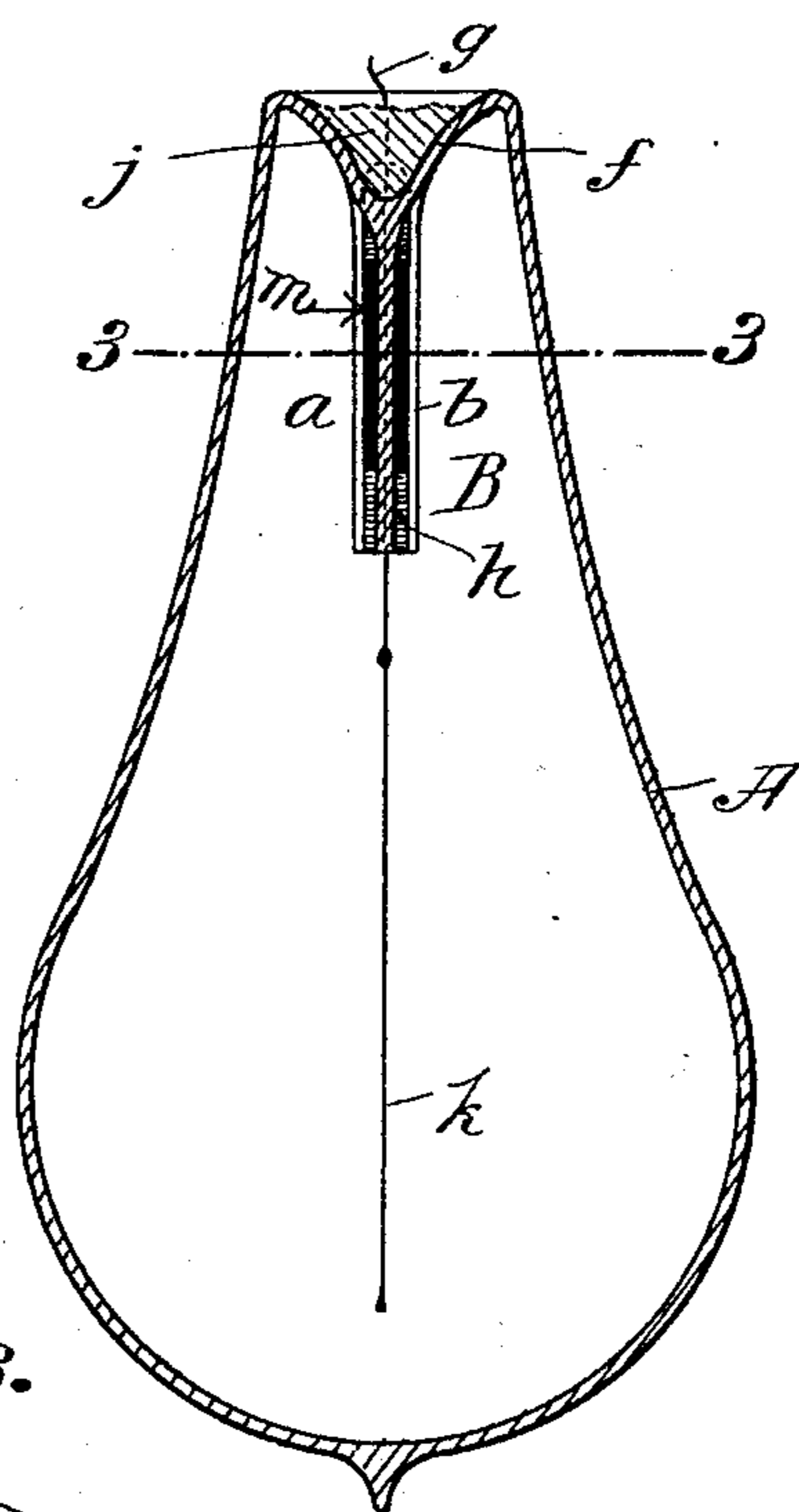


Fig. 3.

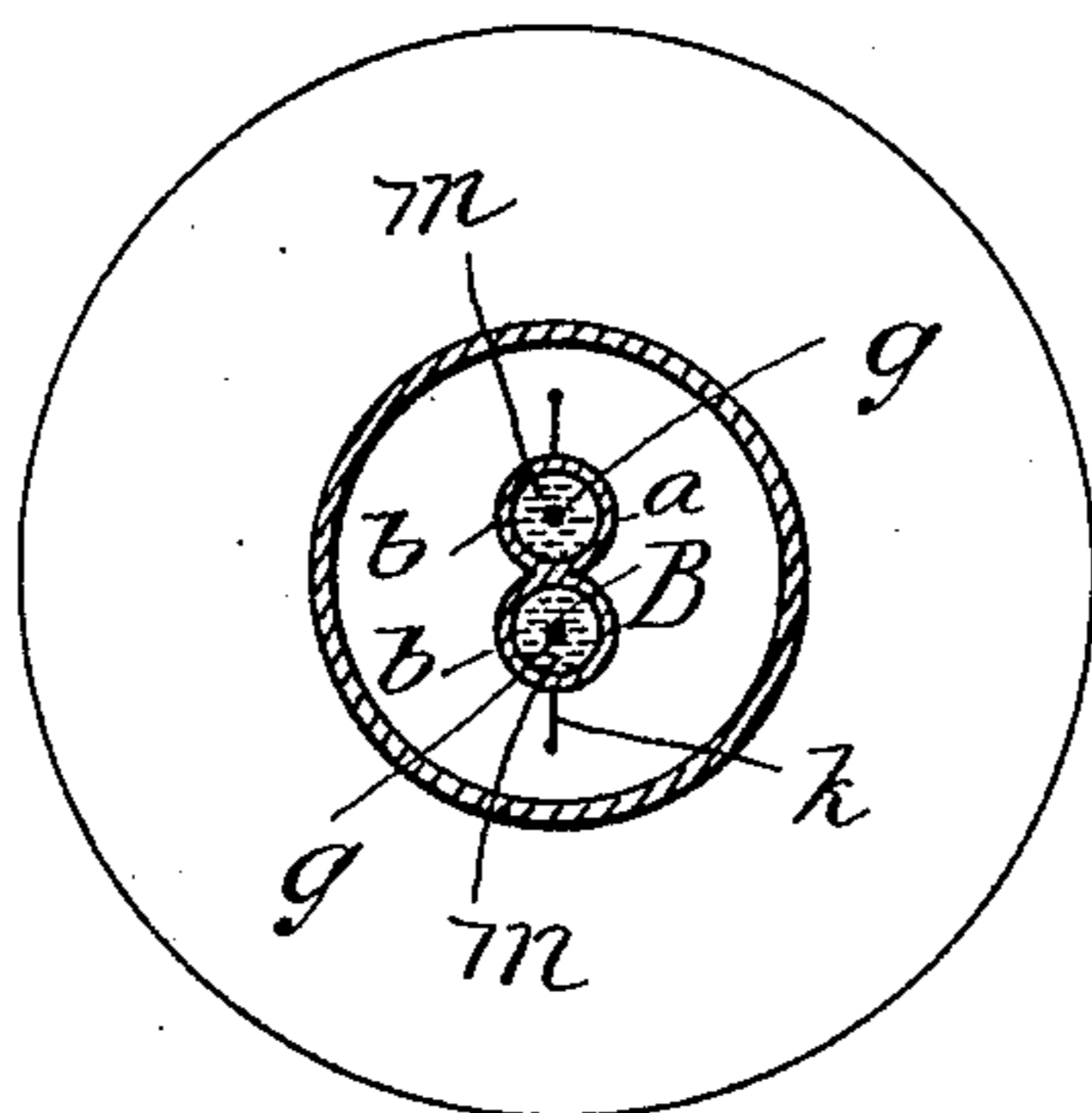
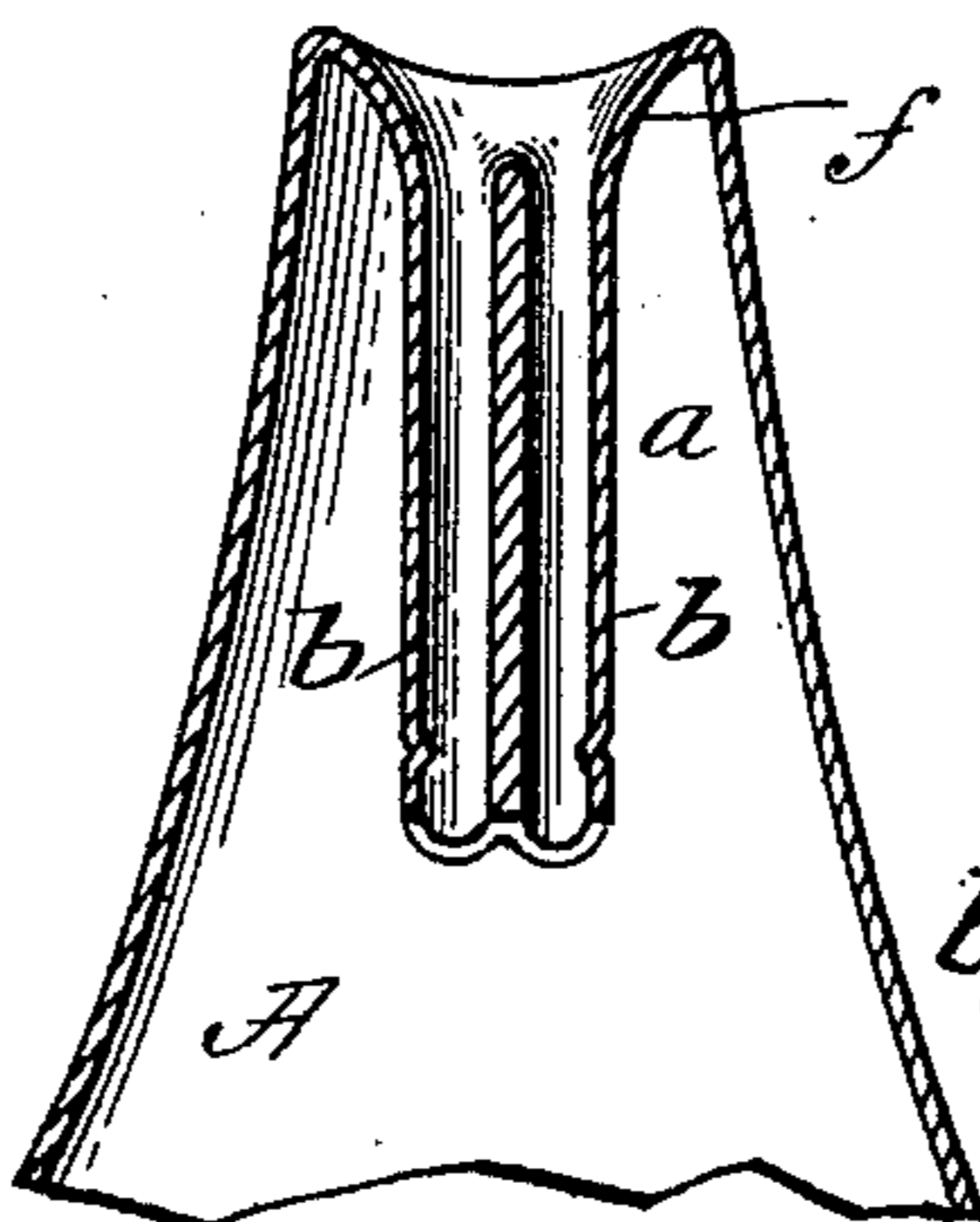


Fig. 4.



Witnesses:

J. D. Gayfield
H. A. Clemens

Inventor,
John E. Criggall.
by Chapin & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN E. CRIGGAL, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO THE
DAVIS ELECTRICAL WORKS, OF SAME PLACE.

ELECTRIC INCANDESCENT LAMP.

SPECIFICATION forming part of Letters Patent No. 518,179, dated April 10, 1894.

Application filed December 8, 1893. Serial No. 493,158. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. CRIGGAL, a subject of the Queen of Great Britain, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Electric Incandescent Lamps, of which the following is a specification.

This invention relates to improvements in that class of electric incandescent lamps which have the leading-in wires in their course through the dome, or mount, within the neck of the lamp bulb, passed through a sealing quantity of mercury whereby the entrance of air into the globe may be excluded.

The object of the invention is to produce a lamp of the class indicated, but of improved construction, whereby the production is facilitated and cheapened.

The improved lamp is illustrated in the accompanying drawings, Figures 1 and 2 being central, longitudinal sections of the improved lamp taken on planes at right angles, the one to the other. Fig. 3 is a cross sectional view on line 3—3, Fig. 2. Fig. 4 is a sectional and perspective view of the neck, or shank, portion of the bulb, or globe, the same comprising a structural formation which conduces to the composition of the present improvement.

In the drawings, A represents the glass globe, or bulb, comprising as an internal part of its neck the inverted dome, or mount through which the leading-in wires pass, and which is formed in part of glass and in part of other materials, as will shortly appear. The glass part, *a*, of this internal mount for the leading-in wires, consists of two tubes, *b, b*, of substantially uniform diameter, arranged side by side, they being preferably joined by the integral intermediate web, or partition, *d*, of glass; and the mouth portions of these tubes diverge, and merge into the surrounding circular wall of the lamp neck, substantially as shown at *f*. The leading-in wires, *g, g*, of any metal desired, are passed longitudinally through and beyond these tubes, though they are not in any wise supported by the glass constituting them, but they are supported by the filling material, as plaster of paris, seen

at *h*, and *j*. The plastic material may be filled in so as to effectually close the lower ends of the tubes; the tubes each receiving thereabove, the mercury, *m*, which is of quantity to but partially fill the tubes. The plastic material, closing the upper ends of the tubes, also serves to secure the annular cap in place, and to support the terminal stud, or button, which is insulated from the cap, said cap and button being in electrical communication with the leading-in wires. The filament, *k*, is joined in the usual manner to the inner ends of the leading-in wires.

In lieu of using plaster of paris as the material for closing the inner ends of the tubes, *b, b*, and for filling the upper mouths thereof, I may employ this material in combination with other material, or, I may employ for this purpose other impervious and compressible materials, or compositions thereof.

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

1. A lamp bulb, or globe, having supported within its neck two tubes of glass which are open from end to end, the leading-in wires passed longitudinally through said tubes, a cement or plastic material filling and closing the inner ends of the tubes, a quantity of mercury in said tubes above the said inner end-filling, and the filament connected to the inner ends of the leading-in wires, substantially as described.

2. A lamp bulb, or globe, having supported within its neck two tubes of glass which are open from end to end, the leading-in wires passed longitudinally through said tubes, a cement or plastic material filling and closing the inner ends of the tubes, a quantity of mercury in said tubes above the said inner end-filling, a cement or plastic material closing the upper ends of the said tubes, and the filament connected to the inner ends of the leading-in wires, substantially as described.

JOHN E. CRIGGAL.

Witnesses:

WM. S. BELLOWS,
J. D. GARFIELD.