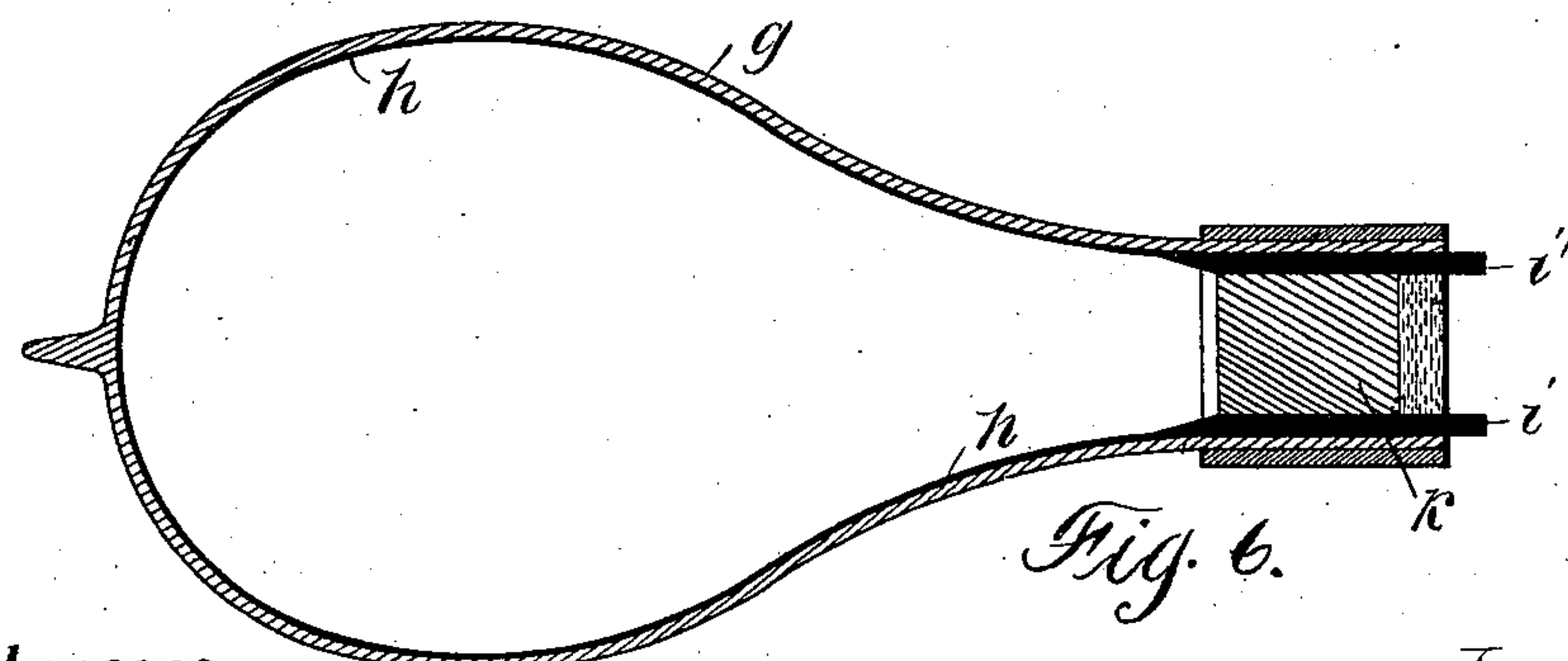
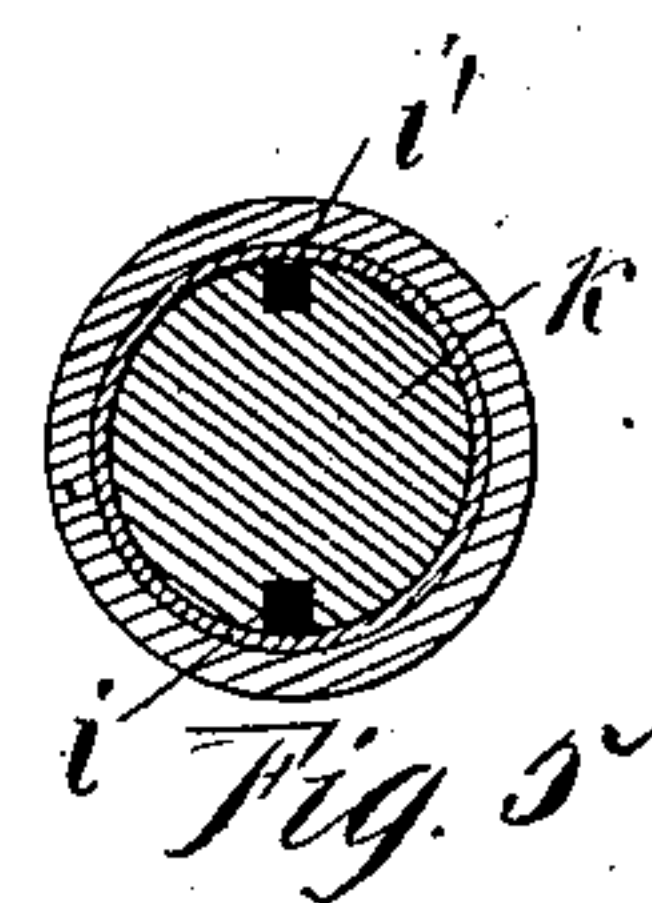
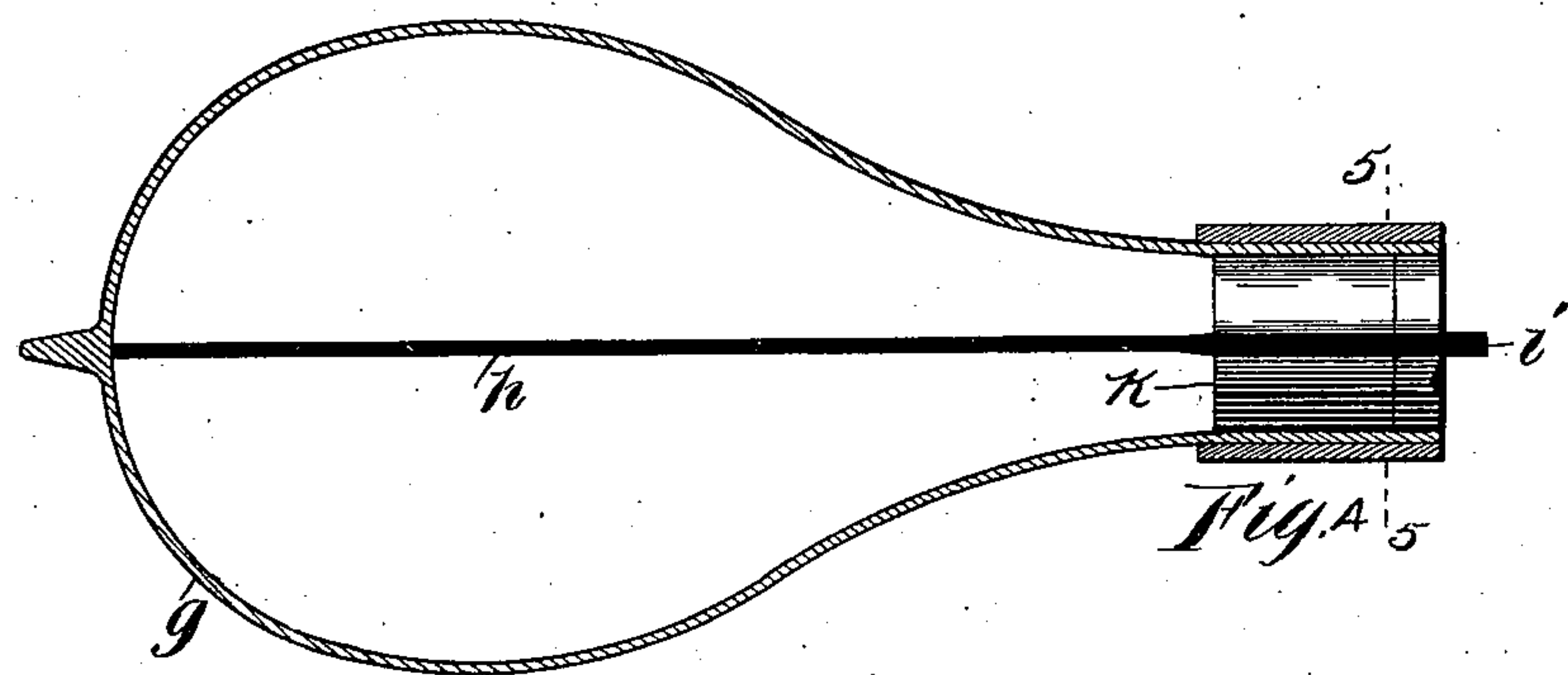
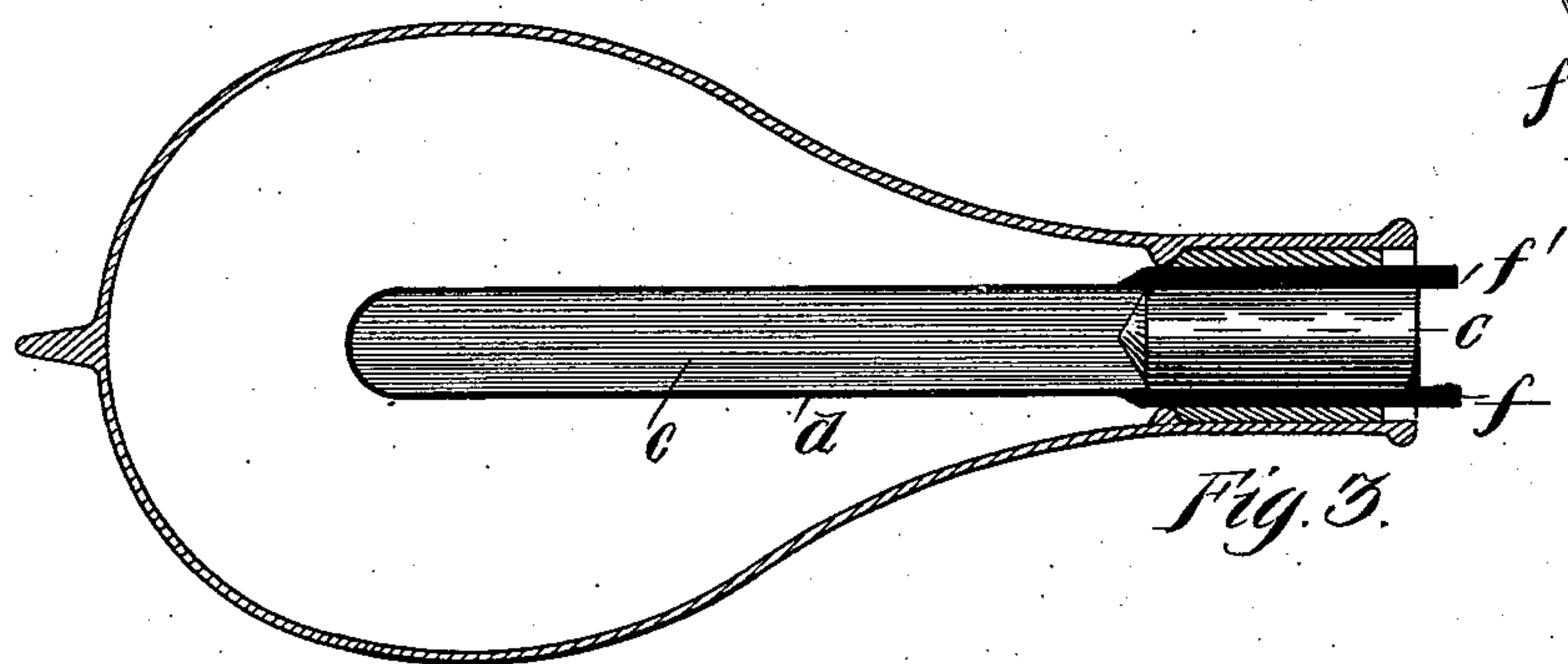
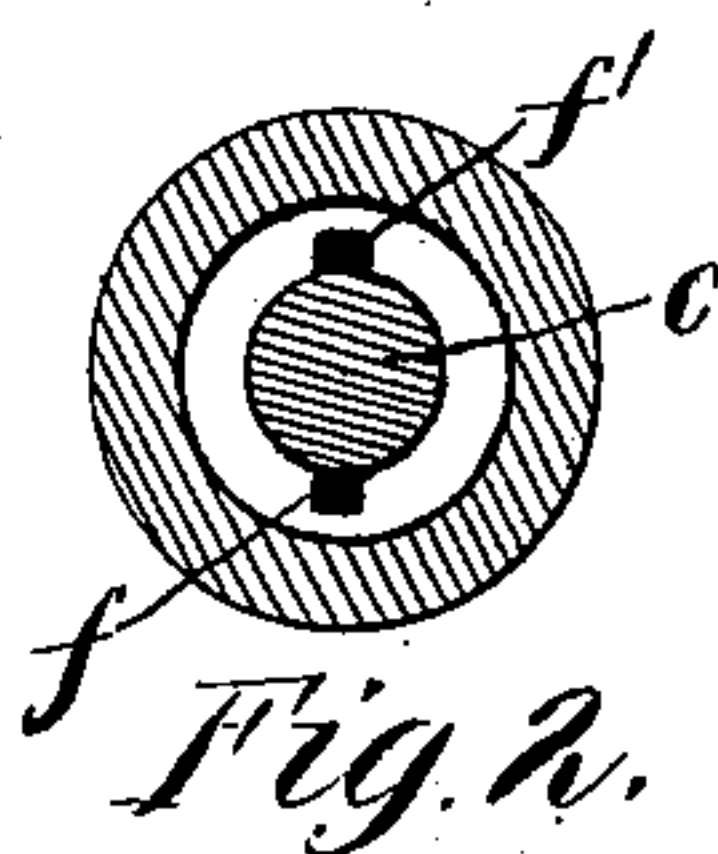
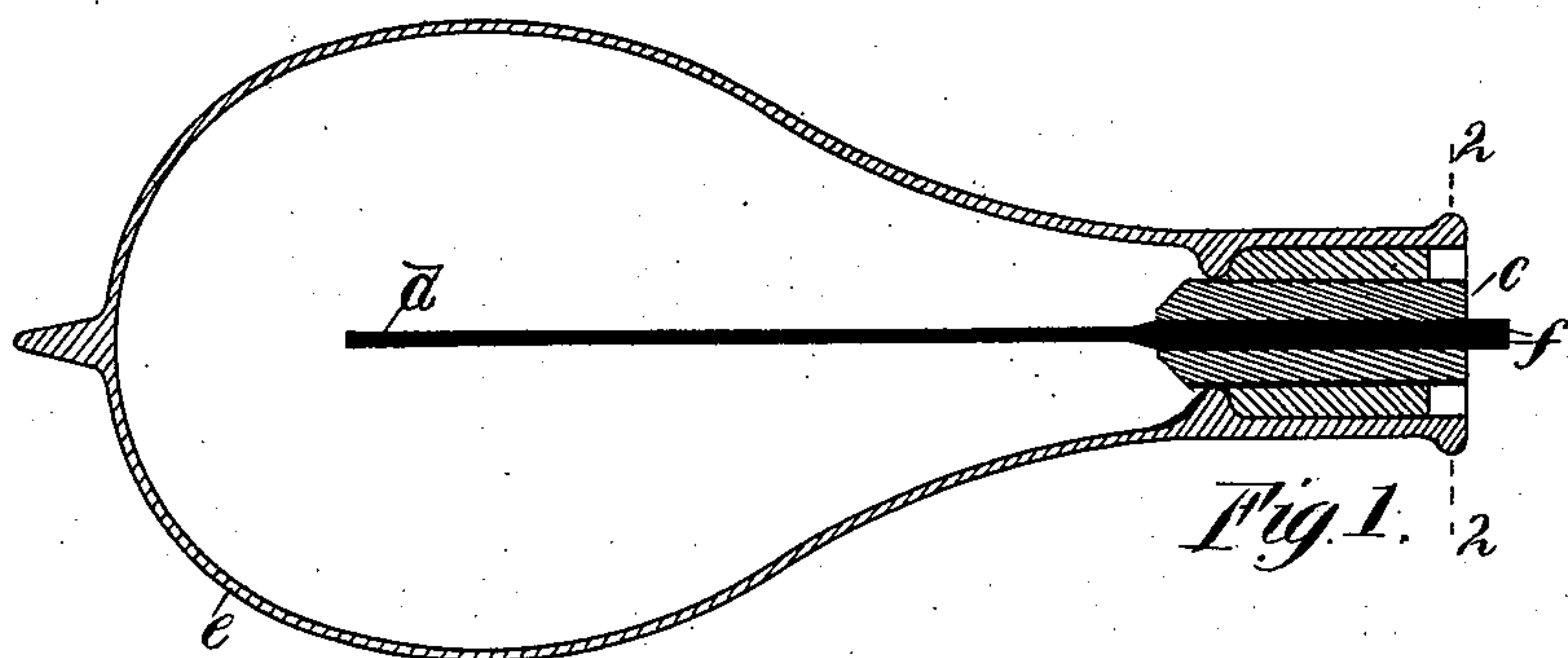


(No Model.)

C. E. SCRIBNER.
INCANDESCENT LAMP.

No. 563,319.

Patented July 7, 1896.



Witnesses:
Dr. Mitt C. Tammert,
W. Clyde Jones.

Inventor:
Charles E. Scribner,
By Barton & Brown
Attorneys.

UNITED STATES PATENT OFFICE.

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

INCANDESCENT LAMP.

SPECIFICATION forming part of Letters Patent No. 563,319, dated July 7, 1896.

Application filed July 20, 1891. Serial No. 400,025. (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 Incandescent Electric Lamps, (Case No. 275,) 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.

My invention relates to the construction of incandescent electric lamps. Its object is to produce an incandescent lamp of simple and durable construction.

In my invention I employ as the incandescent conductor a film of carbon or other suitable refractory conducting material electrically or chemically deposited upon the surface of an insulating-body of suitable character. This conductor is inclosed as usual in an exhausted globe, and may be connected to the external circuit by suitable conductors or leading-in wires passing through the globe and connected to different parts of the film.

My invention includes various forms and arrangements of the film. Thus, I have sometimes deposited the conducting-film directly upon the inner surface of the bulb. I have also deposited the film upon the external surface of a block or plate of insulating substance, as upon the edge of a circular or oblong disk, and inclosed this disk in an exhausted bulb.

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

Figure 1 is a view in cross-section of a lamp of that form in which the film or plating is deposited upon the edge of the plate, the plug upon which the film is mounted being shown in elevation. Fig. 2 is a transverse sectional view on line 2 2, Fig. 1. Fig. 3 is a sectional view, partially in elevation, looking at right angles to the view of Fig. 1. Fig. 4 is a view of a lamp in which the film is deposited upon the inner surface of the globe. Fig. 5 is a transverse sectional view on line 5 5, Fig. 4. Fig. 6 is a sectional view at right angles to the view of Fig. 4.

Referring to Fig. 1, *c* is a plate of refractory insulating material. Upon its edge at two sides and the top is deposited the narrow film *d*. The whole is surrounded by a glass bulb *e*, which is exhausted of air in the usual manner. Connection with the film is established by means of the conductors or leading-in wires *ff'*, sealed through the globe.

In Fig. 4, *g* is a glass bulb exhausted of air, having deposited upon its inner surface a narrow film *h*. Connection is made with opposite ends of the film by the conductors *i i'*. The leading-in conductors may be brought into electrical connection with the film in various ways, as by securing the conductors in place and plating or depositing a portion of the film directly upon the conductors, or the film may be provided with enlarged portions *i i'*, extending through and sealed into the bulb, which enlarged portions may be deposited upon the plug *k*, secured in the neck of the bulb. The plate *c* may be of any suitable refractory insulating material, as glass, soapstone, or porcelain.

It is obvious that the leading-in wires do not constitute an essential portion of my invention. The film itself may be continued down upon the surface of the bulb or block, and a suitable plug may be sealed over the film at its lower extremity, the film being broadened or thickened at the exposed portion to enable it to carry the current without heating.

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

The combination with an exhausted bulb of glass, of a film of carbon or other refractory conducting material deposited upon the inner surface of the bulb, and leading-in wires sealed into the bulb making electrical connection with the film, substantially as and for the purpose specified.

In witness whereof I hereunto subscribe my name this 18th day of July, A. D. 1891.

CHARLES E. SCRIBNER.

Witnesses:

FRANK R. MCBERTY,
GEORGE L. CRAGG.