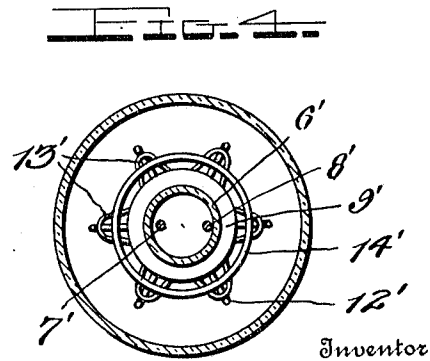
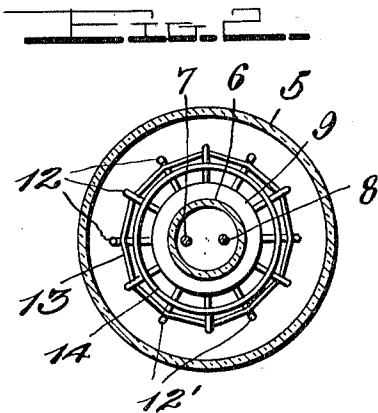
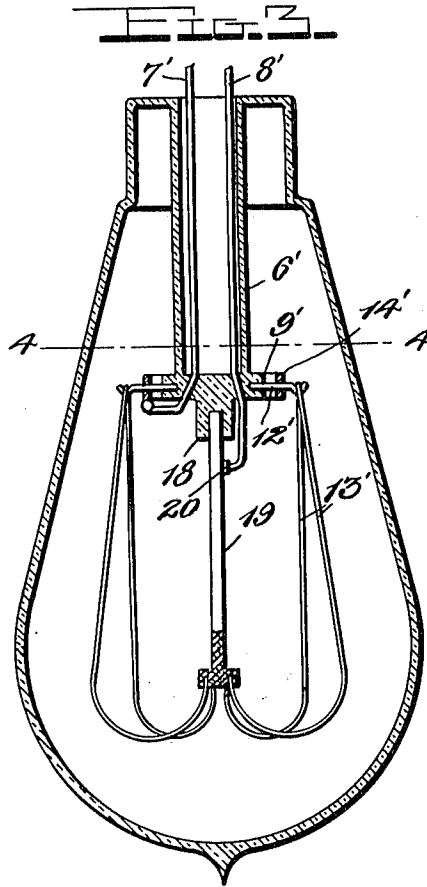
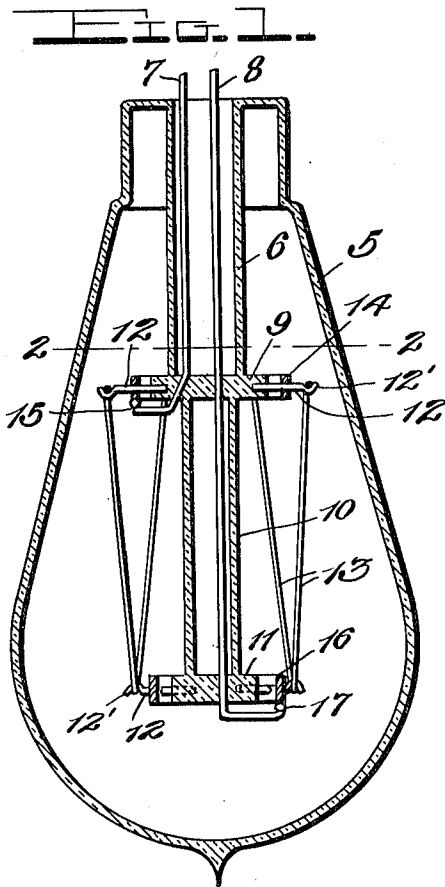


R. H. SINGLEY.
 INCANDESCENT ELECTRIC LAMP.
 APPLICATION FILED NOV. 18, 1911.

1,020,319.

Patented Mar. 12, 1912.



Witnesses

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ROYAL HOWARD SINGLEY, OF BURNHAM, PENNSYLVANIA.

INCANDESCENT ELECTRIC LAMP.

1,020,319.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed November 18, 1911. Serial No. 661,058.

To all whom it may concern:

Be it known that I, ROYAL HOWARD SINGLEY, a citizen of the United States, residing at Burnham, in the county of Mifflin and State of Pennsylvania, have invented certain new and useful Improvements in Incandescent Electric Lamps, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to incandescent electric lamps and has for its primary object the provision of new and improved means for mounting the filament within the globe of the lamp.

15 A further object of the invention is to provide improved means for mounting a plurality of filaments and connecting the same in series with the terminal wires of the lamp circuit whereby any one of the filaments may break or burn out without affecting the electrical connection with the other filaments or materially reducing the brilliancy of the light.

25 A still further object of the invention is to provide a simple and effective device of the above character which may be manufactured at comparatively small cost and whereby the efficiency of such lamps is materially increased.

30 With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

35 Figure 1 is a longitudinal section of an incandescent electric lamp of the tungsten type embodying my improvements; Fig. 2 is a section taken on the line 2—2 of Fig. 1; Fig. 3 is a view similar to Fig. 1 showing a slight modification of the invention when used in connection with a carbon lamp; and Fig. 4 is a section taken on the line 4—4 of Fig. 3.

45 Referring in detail to the drawing and more particularly to Figs. 1 and 2 thereof 5 designates the lamp globe which may be of any preferred form and is constructed of glass. This globe is formed at its smaller end with an inwardly extending longitudinally disposed tube 6 through which the terminal wires 7 and 8 respectively extend. The inner end of this tube is provided with a circumscribing flange 9 and a second tube 10 of smaller diameter than the tube 6 is formed upon the inner end of the latter tube

and is also disposed longitudinally within the lamp globe. The end of this tube 10 is provided with the flange 11. In the flanges 9 and 11 of the tubes 6 and 10 respectively, the inner ends of the radially disposed arms 12 are fixed, and said arms are provided upon their outer ends with the hooks 12' to which the ends of the filaments 13 are connected. The terminal wire 7 extends exteriorly of the tubes 6 and 10 at the juncture thereof and is connected to a metal ring 14 as indicated at 15. The arms 12 are secured in or to this ring 14 which is disposed in spaced concentric relation to the flange 9 on the tube 6. The other of the terminal wires 8 is disposed through the tube 10 and extends through the end thereof, said wire being connected to the metal ring 16 as shown at 17.

75 When the current is turned on, the circuit is connected through the wire 7, the metallic ring 14 and arms 12 to the innermost arms 12 which are fixed to the ring 16, through the medium of the filaments 13, said circuit being continued through the wire 8 which is connected to the ring 16 and back to the source of current supply. By means of this construction it will be readily seen that any one of the filaments 13 may break or burn out without entirely destroying the continued efficiency of the lamp, the brilliancy of the light being simply reduced slightly in candle power.

90 In Figs. 3 and 4 I have illustrated a slightly modified form of the invention applied to a carbon lamp. In this form the lamp globe is provided upon its smaller end with the inwardly extending tube 6' which is formed upon its inner end with the flange 9' and a solid nipple 18. In this nipple one end of a longitudinally disposed carbon post 19 is fixed. The metal ring 14' is fixed to the outer ends of the short radially disposed arms 12' to which one end of the filaments 13' are connected, the lower ends of said filaments being secured to the inner end of the carbon post 19. The terminal wire 7' is extended through the inner end of the tube 6' and is connected to the ring 14' in a similar manner as described in connection with the preferred form of the device, and the other of the wires 8' is extended through the inner end of said tube and connected to the carbon post as indicated at 20. In this form of the invention the current passes through the wires 7', ring

14', filaments 13' and carbon post 19 through the other of the wires 8' back to the source of supply. The same advantages accrue to this modified construction as when the invention is used in a lamp of the tungsten type.

From the foregoing it is believed that the construction and operation of my improved lamp filament and mounting therefor will be fully understood. The serviceability and efficiency of the lamp is materially enhanced with but a slight additional cost in the manufacture thereof over the common form of such lamps now upon the market. While I have specifically described a particular arrangement of the arms to which the filaments are connected, it will of course be obvious that they may be otherwise arranged if desired without departing from the principle of the invention.

It will further be understood that the various elements of construction are susceptible of considerable variation in the form and arrangement without sacrificing any of the advantages of the invention.

Having thus described the invention what is claimed is:—

1. In an incandescent electric lamp, a glass globe having an inwardly extending tube formed on one end, a current conducting metal ring arranged in concentric relation to the inner end of the tube, a plurality of arms secured to said ring and fixed to the tube at their inner ends, the

terminal wires of the lighting circuit extending through said tube and through the inner end thereof, one of said wires being connected to said ring, a current conductor to which the other of the terminal wires is connected, and a plurality of filaments connecting said arms with said current conductor.

2. In an incandescent electric lamp, a glass globe having an inwardly extending tube formed on one end and provided with a flange upon its inner end, a plurality of radial arms fixed in said flange, a metallic ring connecting said arms, a second tube formed upon the inner end of the first named tube and extending longitudinally therefrom, current conducting arms fixed to the inner end of the latter tube, a metallic connection between said arms, terminal wires extending through the first named tube, one of said wires being connected to the ring connecting the first named series of arms, the other of said wires extending through the last mentioned tube and being connected to the metallic connection between the latter series of arms, and a plurality of filaments connecting the spaced series of arms at their outer ends.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ROYAL HOWARD SINGLEY.

Witnesses:

SAMUEL CORBIN,
WINFIELD STEWART.