Oct. 28, 1924. 1,513,407

A. L. LOMBOS

INCANDESCENT LAMP

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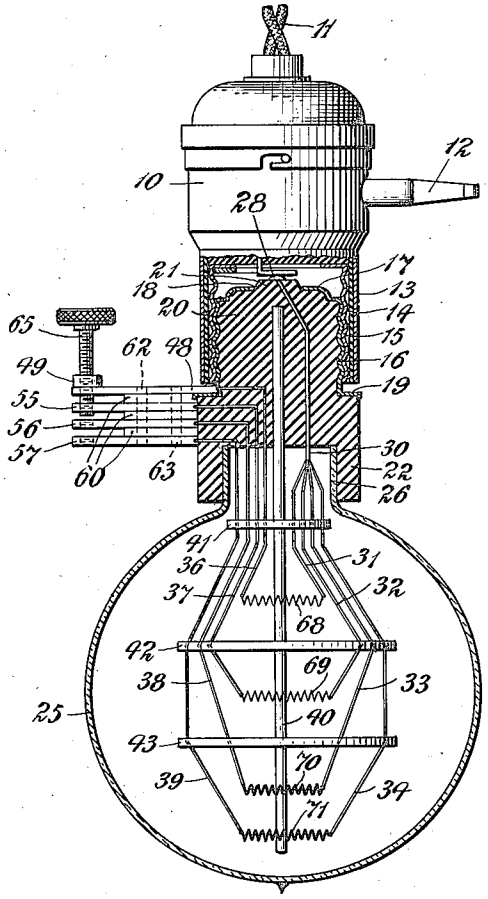


Fig. 1

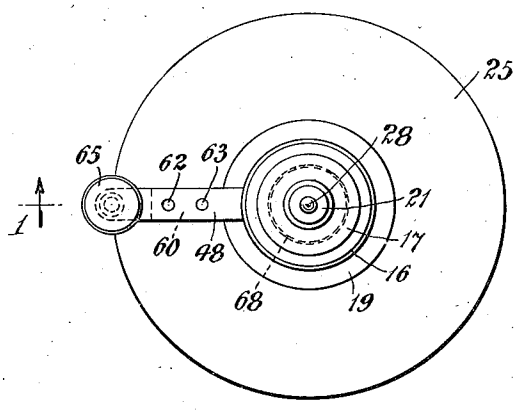


Fig. 2

Inventor

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By his Attorney

A. Ade Bomeville

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UNITED STATES PATENT OFFICE.

ARTHUR LASSLOW LOMBOS, OF NEW YORK, N. Y.

INCANDESCENT LAMP.

Application filed March 25, 1921. Serial No. 455,623.

To all whom it may concern:

Be it known that I, ARTHUR LASSLOW LOMBOS, citizen of the Republic of Hungary, and resident of the borough of Bronx, city of New York, in the county of Bronx and State of New York, have invented certain new and useful Improvements in Incandescent Lamps, of which the following is a specification.

This invention relates to an incandescent lamp.

The object of the invention is the production of an incandescent lamp with a plurality of filaments or equivalent elements, having equal or different capacities, with means for producing a plurality of independent electric circuits for said elements or filaments.

The organization of the invention comprises a lamp socket with a switch, to which is attached the base of an electric lamp bulb. The shell of the base has connected thereto and in electric circuit therewith a switch bar. A main leading-in wire in the plug of electric insulating material of the base of the lamp has extending therefrom a plurality of branch leading-in wires.

A plurality of switch bars adjacent to said plug can be brought in electric circuit with the first switch bar. A branch leading-in wire extends from each of said switch bars. Each branch leading-in wire of the switch bars is in electric circuit with one of the other branch leading-in wires through the intervention of a filament or equivalent element.

The electric circuit of each filament with its branch leading-in wires is independent of the others. By this means any of the filaments or their branch leading-in wires may be inoperative without interfering with the efficient operation of the others. This results in the novel feature of being enabled to electrically energize an incandescent electric lamp while some of the filaments or their branch leading-in wires are broken.

In the accompanying drawings Fig. 1 represents a part elevation and vertical section as on the line 1, 1 of Fig. 2 of an incandescent electric lamp with its appurtenances exemplifying the invention and Fig. 2 shows a partial top view of Fig. 1.

An ordinary lamp socket 10, with the wires 11 for electric current, and the switch handle 12, has extending therefrom the shell 13. The latter has bearing against its inner surface the sleeve 14 of electric insulating material. A threaded sleeve 15 of electric conducting material bears against the sleeve 14.

The base of the lamp is indicated with the threaded shell 16, which has formed therewith the roof 17 having the opening 18 and at its lower end is formed the annular flange 19. A plug of electric insulating material is secured in the threaded shell 16. The plug comprises the upper portion 20 with its upper end extending through the opening 18, and the lower enlarged cylindrical portion 22.

A glass bulb 25 is indicated with the neck 26, which is imbedded into the cylindrical portion 22 of the plug of insulating material. A terminal 28 for the bulb is supported on the upper end of the portion 20 and has extending therefrom the main leading-in wire 30. A plurality of branch leading-in wires 31, 32, 33 and 34 extend from the wire 30. A plurality of branch leading-in wires are indicated at 36, 37, 38 and 39. A post 40 of electric insulating material has one end imbedded in the plug comprising the portions 20 and 22, and extends into the bulb 25. Discs or cross bars 41, 42 and 43 of electric insulating material extend from the post 40. The pair of wires 34 and 39 and the pair of wires 33 and 38 extend through all the said discs or cross-bars. The pair of wires 32 and 37 extend through the discs or cross bars 41 and 42 and the pair of wires 31 and 36 extend through the disc or cross bar 41. The wire 30 at its upper end is connected to the terminal 28 and the wire 36 at its upper end is connected to the threaded shell 16. A switch bar 48 having the sleeve 49 and of electric conducting material extends from the flange 19 of the shell 16. The outer end of the bar 48 and its sleeve 49 have formed therein a threaded opening. A plurality of switch bars 55, 56 and 57 of electric conducting material are located in alignment with the bar 48, and the outer end of each has formed therein a threaded opening. A plurality of strips 60 of electric insulating material are located between the switch bars 55, 56 and 57 and plugs 62 and 63 of electric insulating material connect said switch bars and strips.

A screw 65 of electric conducting material is in threaded engagement with the switch bar 48 and can be turned to engage

any or all of the other switch bars 55, 56 and 57.

The wire 36 has its top end connected to the shell 16. The wire 37 has its top end connected to the switch bar 55. The wire 38 has its top end connected to the switch bar 56 and the wire 39 has its top end connected to the switch bar 57. The lower ends of the wires 31 and 36 are connected by the filament 68. The lower ends of the wires 32 and 37 are connected by the filament 69. The lower ends of the wires 33 and 38 are connected by the filament 70 and the lower ends of the wires 34 and 39 are connected by the filament 71.

The filaments 70 and 71 in this instance are of greater capacity than any of the other filaments.

To use the lamp when the switch of the lamp socket is turned to close the electric circuit, the wires 31 and 36 with their filament 68 will be energized in the usual way. When the screw 65 is turned to enter the opening in the switch bar 55 the electric current will, in addition to energizing the wires 31 and 36 with their filament also flow through the wires 32, 37 and the filament 69 to energize the latter filament. When the screw is turned to engage the opening in the bar 56 the current will also flow through the wires 33, 38 and filament 70 to energize the latter in addition to the energizing of the filament 68 and 69. When the screw is turned to engage the switch bar 57, the electric current will also flow through the wires 34, 39 and the filament 71 to energize the latter in addition to energizing the filaments 68, 69 and 70.

In case one or more of the filaments are broken, or burned out or for any reason are inoperative, it will not interfere with the electric current flowing through and energizing the filaments that are not broken or not inoperative. In case the electric current does not flow through any one of the pairs of leading-in wires, it will not interfere with the current flowing through the remaining pairs of leading-in wires.

The invention may be modified in its various details within the spirit of the claims and I do not confine myself to the specific exemplification thereof shown and described in this application which is illustrative and not limitative.

Having described my invention what I desire to secure by Letters Patent and claim is:

1. The combination in an electric lamp of an electric bulb, a base for said bulb, a metallic shell for the base, a main leading-in wire in said base and electrically insulated from its shell, a plurality of branch leading in wires extending from said main leading-in wire and extending into the bulb of the lamp, a switch bar in electric circuit with the shell of the base, a plurality of other switch bars adjacent to the first switch bar and normally electrically insulated therefrom and from each other, a branch leading-in wire extending from each of said switch bars and extending into the bulb of the lamp, a filament connecting each one of the latter branch leading-in wires with one of the other branch leading-in wires and a screw of electric conducting material in threaded engagement with the first switch bar and adapted to make contact with the other switch bars.

2. The combination in an electric lamp of an electric bulb, a base for said bulb, a metallic shell for the base, a main leading-in wire in said base and electrically insulated from said shell, a plurality of branch leading-in wires extending from said main leading-in wire and extending into the bulb of the lamp, a switch bar in electric circuit with the shell of the base, a plurality of other switch bars adjacent to the first switch bar and normally electrically insulated therefrom, and from each other, a branch leading-in wire extending from each of said switch bars and extending into the bulb of the lamp, a filament connecting each of the latter branch leading-in wires with one of the other branch leading-in wires and means to bring the switch bars in electric circuit with one another.

Signed at the borough of Manhattan, city of New York, in the county of New York and State of New York, this 23d day of March, A. D. 1921.

ARTHUR LASSLOW LOMBOS.