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2,082,326

ELECTRIC LAMP

Filed Aug. 12, 1935

Fig. 1.

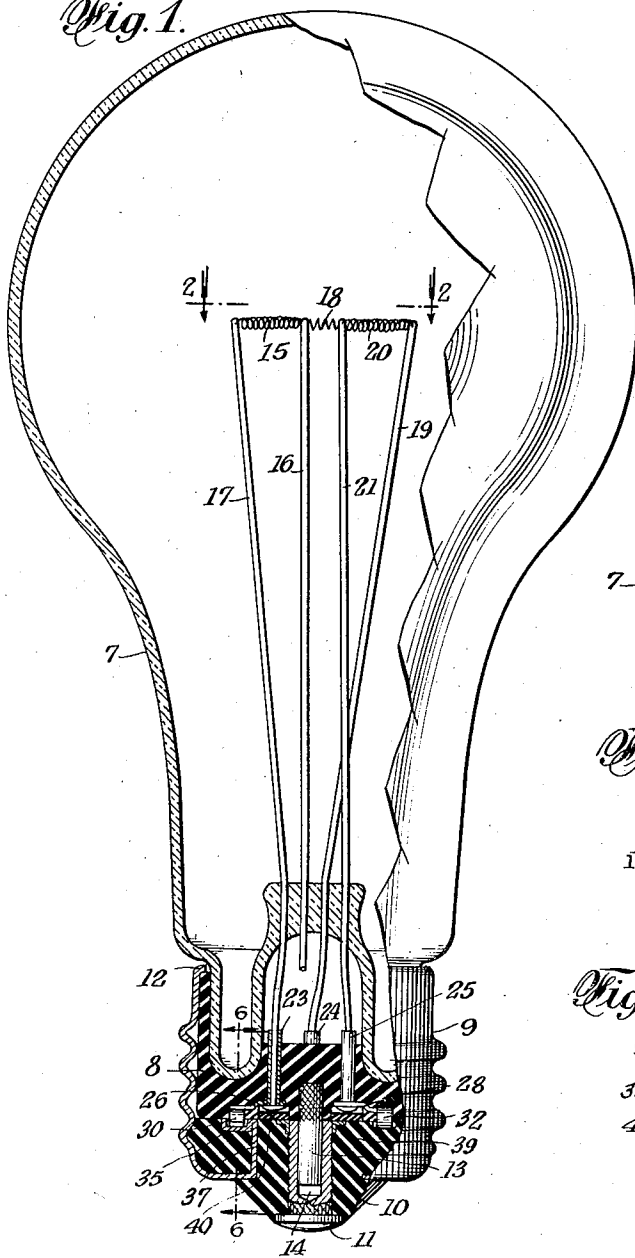


Fig. 2.

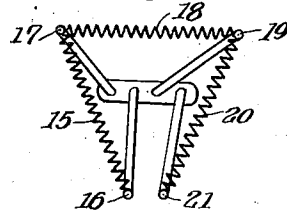


Fig. 3.

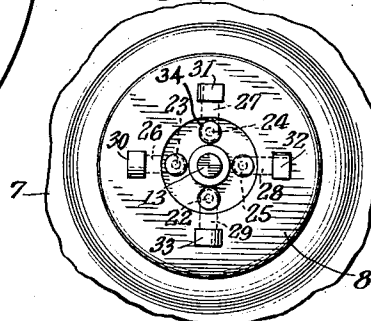


Fig. 4.

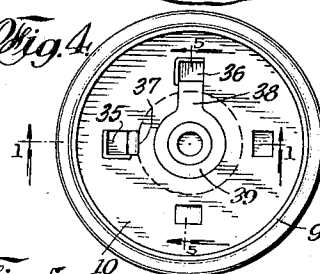


Fig. 5.

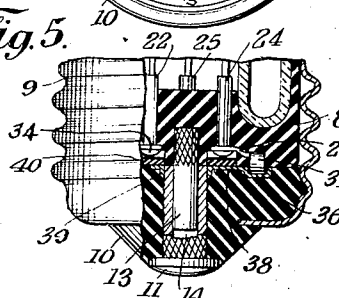
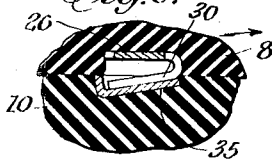


Fig. 6.



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ELECTRIC LAMP

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Application August 12, 1935, Serial No. 35,733

5 Claims. (Cl. 176—27)

This invention relates to multiple filament lamps.

Special objects of the invention are to provide a plural filament lamp, which will fit in any ordinary lamp socket and which can be operated quickly and easily to make the different circuit changes without removing the lamp from the supporting socket; also to provide a lamp having these desirable characteristics and which will be of relatively simple, inexpensive and entirely practical design.

The foregoing and other desirable objects are attained by the novel features of construction, combinations and relations of parts hereinafter described, illustrated in the accompanying drawing and broadly covered in the claims annexed.

For purposes of disclosure, one embodiment of the invention is illustrated, but it will be appreciated that the actual structure may be modified in various ways all within the true intent and broad scope of the invention.

Fig. 1 is a broken and part sectional view showing a form of three filament lamp incorporating features of the invention.

Fig. 2 is a plan view of the filaments, as on line 2—2 of Fig. 1.

Fig. 3 is a broken view of the end of the lamp body.

Fig. 4 is a view of the end of the base which receives the end of the lamp body.

Fig. 5 is a broken part sectional view of the rotatably combined lamp body and base, similar to Fig. 1, the sectional portion of this view being taken generally on the plane of line 5—5 of Fig. 4, as distinguished from the sectional portion of Fig. 1, which is taken on substantially the plane of line 1—1 of Fig. 4.

Fig. 6 is an enlarged broken sectional detail of one set of ratchet contacts as on substantially the plane of line 6—6 of Fig. 1.

The invention consists in the main of two unitary parts, a lamp body comprising a globe 7, and cylindrical base portion 8, and the lamp base comprising the screw shell contact 9, forming a receiving socket for the end of the lamp body and containing insulation 10, supporting the center contact 11.

These two main parts are rotatably held together, in the illustration, by having the flange 12, of the screw shell contact turned inwardly over the upper edge of the cylindrical body portion 8.

Pivotal engagement of the two parts is also provided in the structure illustrated by a projecting pin or stud 13, on the end of the body portion

rotatably fitting in a socket 14, in the center contact stud 11.

In the three filament form of construction shown, one filament 15, is supported by the rods or wires 16, 17, Fig. 2, the second filament 18, is supported by rods or wires 17 and 19 and the third filament 20, is supported by rods or wires 19 and 21.

These filament supporting rods may in fact be the leading in wires and they are so shown in Fig. 1.

Terminals for the four leads 16, 17, 19 and 21 are provided in the illustration in the form of tubular elements 22, 23, 24, 25, set in the insulating body 8, and carrying or having attached thereto radially projecting lugs 26, 27, 28, 29, terminating in reversely bent and circumferentially extending spring brushes 30, 31, 32, 33. The wires are shown as secured to these terminal brushes by means of drops of solder 34, which may also serve for securing the brush portions to the tubular portions of the terminals.

By the described construction, each filament has two terminal brushes. The socket portion of the lamp base has two complementary contacts spaced to cooperate with any two adjoining filament contacts.

The two socket contacts are designated 35 and 36, the first being shown as connected by an integral strap or extension 37, with the inner end portion of the screw shell contact and the other 36, Figs. 4 and 5, being shown as connected by an integral lug 38, and sleeve or collar 39, with the center contact stud 11. This collar portion may be simply forced over the roughened exterior of the center contact post 11, substantially as indicated in Figs. 1 and 5, and if desired, a washer 40, of insulating material may be placed between the ends of the filament terminals and the center terminal 38, 39.

In Figs. 3 and 4, it will be noted that the spacing between adjoining filament terminals corresponds to the spacing between the lamp base terminals 35, 36 and, in Figs. 1, 5 and 6, that the spring brushes of the lamp terminals cooperate with the base terminals as spring pawls and ratchets faced to permit rotation of the lamp body in the base in a right handed direction. The friction and spring tension engagement between these parts is sufficient to cause the base part to turn with the lamp part as the latter is rotated to turn the lamp into a supporting socket but when the base is fully seated in the socket, the ratchet structure permits the lamp then to turn in the base to shift from one set of filament

terminals to the next. In turning the lamp backwardly or left-handedly, the ratchet contacts will interlock, forcing the base to turn with the lamp body for unscrewing from the supporting socket.

5 In addition to enabling the selection of one or another of the filaments, the fourth or final position cuts in all three filaments in series, so that any one or all the filaments may be used as desired.

10 The filaments may be of equal or of different wattage and candlepower and either more or less than three filaments may be provided.

The structure is relatively simple, easily manufactured and is strong and sturdy both mechanically and electrically. The ratchet switch forms a practical and efficient means for substituting different filaments or current translating devices and a practical mechanical connection for effecting joint rotary movement of the two parts and relative rotary motion of the parts only in one direction. If desired, the two parts may be made relatively separable, so that different lamp structures may be used with the same lamp base or vice versa.

25 What is claimed is:

1. An electric lamp comprising a two-part lamp base, means connecting said base parts in freely rotatable relation, a lamp globe carried by one of said base parts, a plurality of filaments in said lamp globe, the other of said base parts being a terminal part and carrying screw shell and center lamp terminals, two relatively spaced contacts on said terminal part spaced the same distance from the center of said terminal part and connected one to said screw shell terminal and the other to said center lamp terminal, and concentrically arranged similarly spaced filament terminals on said relatively rotatable globe carrying base part in position to engage said spaced contacts on said terminal part.

2. An electric lamp comprising a two-part lamp base, means connecting said base parts in freely rotatable relation, a lamp globe carried by one of said base parts, a plurality of filaments in said lamp globe, the other of said base parts being a terminal part and carrying screw shell and center lamp terminals, two relatively spaced contacts on said terminal part spaced the same distance from the center of said terminal part and connected one to said screw shell terminal and the other to said center lamp terminal, and concentrically arranged similarly spaced filament terminals on said relatively rotatable globe carrying base part in position to engage said spaced contacts on said terminal part, the means for rotatably connecting said base parts including a center pin projecting from the globe carrying part and the center lamp contact on the terminal base part having a socket rotatably receiving said projecting center pin.

3. An electric lamp comprising a two-part lamp base, means connecting said base parts in freely rotatable relation, a lamp globe carried by one of said base parts, a plurality of filaments in said lamp globe, the other of said base parts being a terminal part and carrying screw shell and center lamp terminals, two relatively spaced contacts on said terminal part spaced the same distance from the center of said terminal part and connected one to said screw shell terminal and the other to said center lamp terminal, and concentrically arranged similarly spaced filament terminals on said relatively rotatable globe carrying base part in position to engage said spaced contacts on said terminal part, said cooperating spaced contacts and filament terminals being in the form of yielding pawl and ratchet members faced to permit rotation of the globe carrying part relative to the terminal part in the direction of rotation of screwing the lamp in a socket and to prevent relative rotation in the direction of rotation of unscrewing the lamp from a socket.

4. An electric lamp comprising a two-part lamp base, means connecting said base parts in freely rotatable relation, a lamp globe carried by one of said base parts, a plurality of filaments in said lamp globe, the other of said base parts being a terminal part and carrying screw shell and center lamp terminals, two relatively spaced contacts on said terminal part spaced the same distance from the center of said terminal part and connected one to said screw shell terminal and the other to said center lamp terminal, and concentrically arranged similarly spaced filament terminals on said relatively rotatable globe carrying base part in position to engage said spaced contacts on said terminal part, there being three filaments connected in end to end series relation and there being four terminals connected with the ends of said series-connected filaments.

5. An electric lamp comprising a two-part lamp base, means connecting said base parts in freely rotatable relation, a lamp globe carried by one of said base parts, a plurality of filaments in said lamp globe, the other of said base parts being a terminal part and carrying screw shell and center lamp terminals, two relatively spaced contacts on said terminal part spaced the same distance from the center of said terminal part and connected one to said screw shell terminal and the other to said center lamp terminal, and concentrically arranged similarly spaced filament terminals on said relatively rotatable globe carrying base part in position to engage said spaced contacts on said terminal part, said filaments being connected in end to end series relation and each filament being connected at its ends with two of the filament terminals.

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