J. T. BIGGER.

INCANDESCENT ELECTRIC LIGHT.

APPLICATION FILED APR. 17, 1908.

939,969.

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Fig. 1.

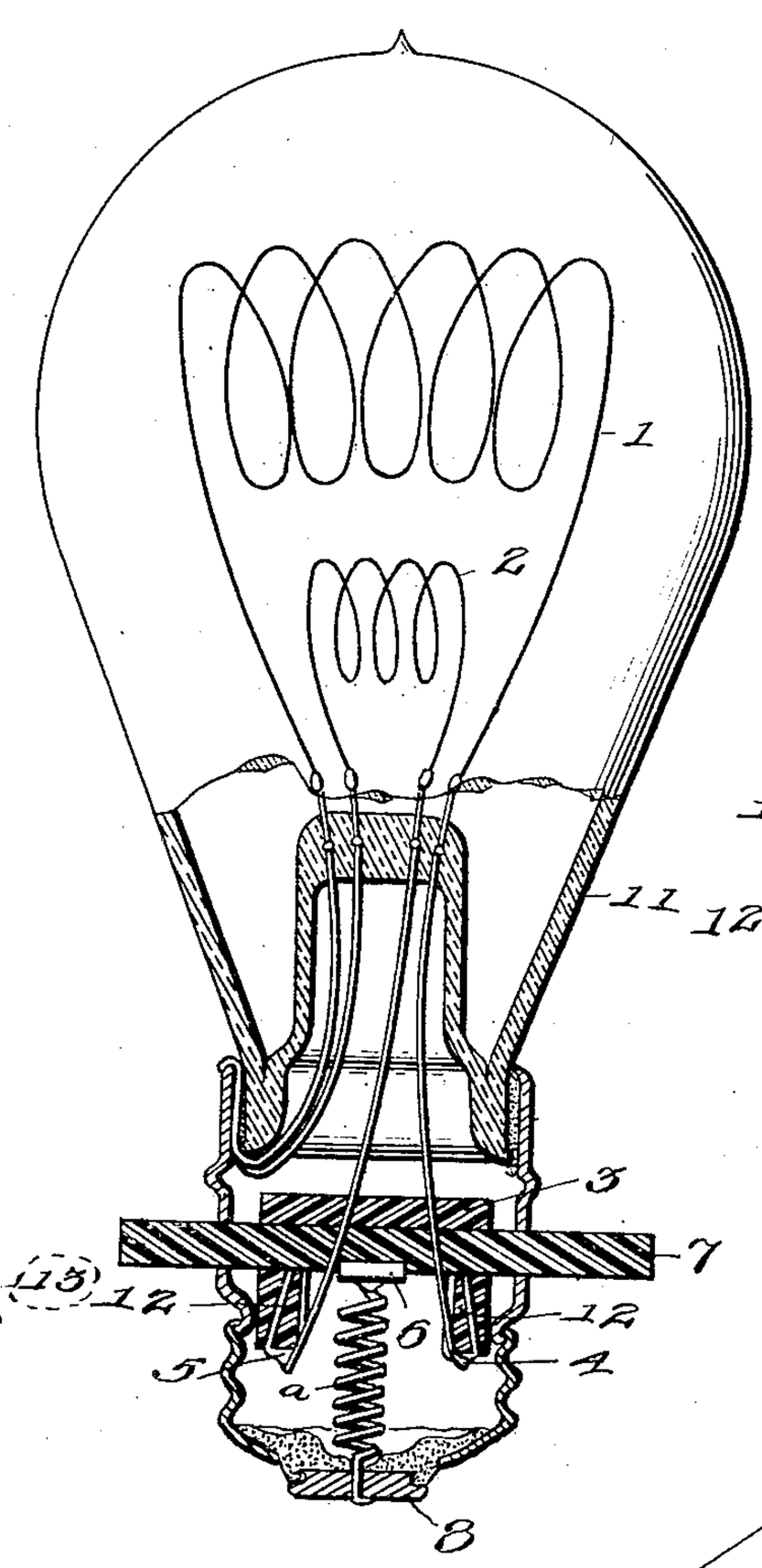
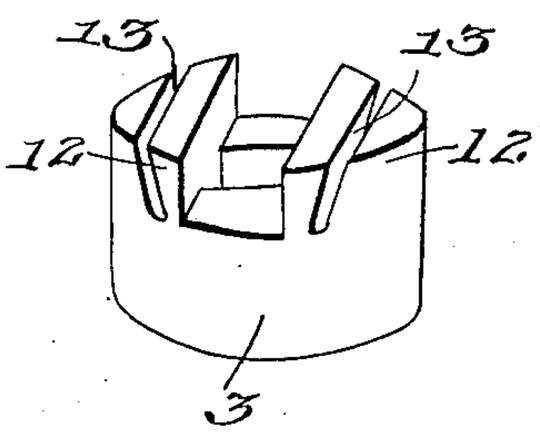


Fig. 3.



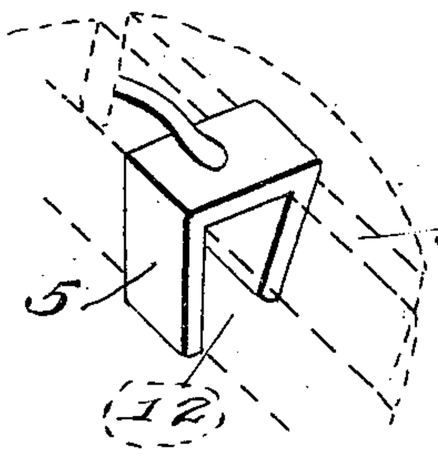


Fig. 4.

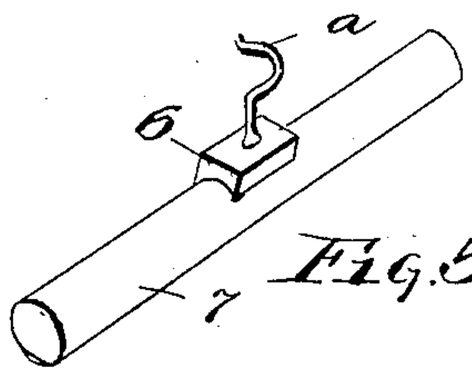
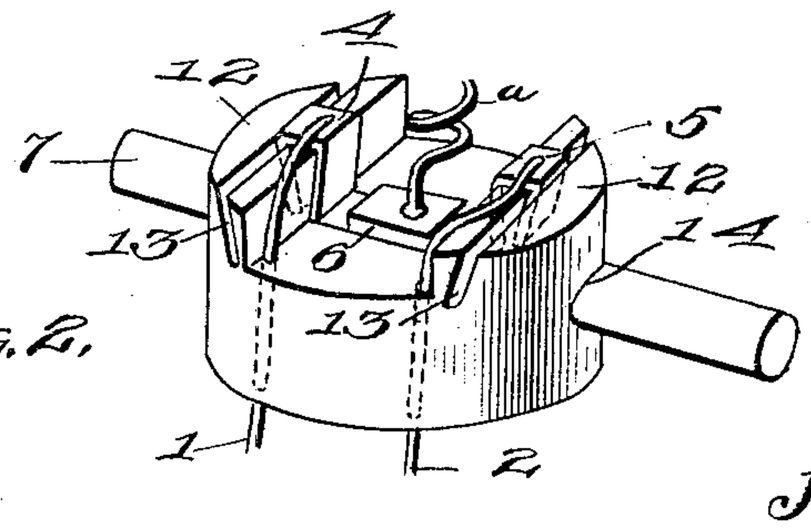


Fig. 5.

Fig. 2.



Witnesses

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INCANDESCENT ELECTRIC LIGHT.

939,969. Specification of Letters Patent. **Patented Nov. 16, 1909.**

Application filed April 17, 1908. Serial No. 427,565.

To all whom it may concern:

Be it known that I, JAMES T. BIGGER, citizen of the United States, residing at Owensboro, in the county of Daviess and State of Kentucky, have invented certain new and useful Improvements in Incandescent Electric Lights, of which the following is a specification.

The present invention has relation to electric lights of the incandescent type and aims to devise a novel construction admitting of either a bright light or a comparatively low light, as may be required, the different lights being produced by bringing different filaments into circuit by moving a push-piece, the projecting ends of which constitute in effect buttons.

The invention combines with the metal end of the bulb a plug of insulating material having two contacts, each forming a terminal of the respective filaments, and a push-piece slidably mounted in the metal end of the bulb and provided with a contact which is adapted to close the circuit through either filament of the lamp according as a high or a low light may be required, said push-piece having its end portions projected beyond the sides of the said metal end to receive pressure of the hand.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a side view of an incandescent electric lamp embodying the invention, the end portion being in section to show more clearly the relative arrangement of the parts. Fig. 2 is a detail perspective view showing the insulating plug equipped with the pushpiece and contacts, and removed from the end of the lamp. Fig. 3 is a detail view in perspective of the plug, the contacts and the push-piece being omitted. Fig. 4 is a detail perspective view of one of the contacts fitted to the said plug, an extension of the latter being shown in dotted lines. Fig. 5 is a detail perspective view of the push-piece.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The lamp in general appearance and construction resembles the ordinary incandescent electric lamp and comprises a bulb and a metal end or cap. Within the bulb are two filaments 1 and 2, the one being for a bright light and the other for a comparatively dim light. One terminal of each of the filaments is in electrical connection with the metal end of the lamp, whereas the other terminal of each is electrically connected with a contact fitted to an insulating plug 3 located within the metal end or stem of the lamp. The contact 4 has one terminal of the filament 1 electrically connected thereto. The contact 5 has one terminal of the filament 2 in electrical connection therewith. A third contact 6 is carried by a push-piece 7 slidably mounted in the metal end of the plug 3 and having its terminal portions projected beyond opposite sides of the metal end or stem of the lamp to provide buttons to receive the pressure when moving the push-piece to bring one or the other of the filaments into circuit. Obviously, when the push-piece 7 is moved to an intermediate position to bring the contact 6 at a point between the contacts 4 and 5 without making electrical connection with either, the lamp is thrown out of circuit or turned off. The metal end of the lamp is adapted to make electrical connection with one wire or lead of a current generator, whereas the contact 8, insulated from the metal end, is adapted to make electrical connection with the other wire or lead of the said current generator or source of supply of electricity. A coiled wire *a* connects the contacts 6 and 8. When the push-piece 7 is moved in one direction to bring the contacts 6 and 4 into electrical connection, the current is caused to flow through the filament 1 and a maximum light is produced. When the push-piece 7 is moved to bring the contacts 5 and 6 into engagement, the current is directed through the filament 2 and a minimum or low light is the result.

The insulating plug 3 is preferably formed at its face adjacent to the contact 8 with two spaced preferably segmental extensions 12.

These extensions are formed, with corresponding intermediate oblique grooves 13, so that the adjacent portions of the extensions constitute tongues which are substantially dovetailed in cross section, as will be observed by reference to Fig. 1, and which carry the respective contacts 4 and 5, the contacts being of similar formation and being of approximately U-form in edge view. The contacts are clamped about the dovetailed tongues, or in other words, straddle the latter with one leg received in a groove 13 and the other legs disposed at the opposing faces of the extensions, it being noted that inasmuch as the tongues are dovetailed, the contacts are effectually retained thereon against accidental displacement. The plug 3 is also formed with an opening 14 in which the push-piece is slidingly mounted, and which communicates with or opens outwardly through the aforementioned face of the plug between the extensions 12 in order to provide a clearance for the contact 6 and admit of the latter being readily shifted into engagement with either selected one of the legs of the contacts 4 and 5 arranged at the opposing faces of the extensions. Attention is also directed to the fact that in addition to its function of carrying the contact 6 and rendering the same susceptible of convenient manipulation, the pushpiece 7 also serves to support the plug 3 within the metal end or cap, the former being otherwise unsecured to the latter.

It is to be understood that the neck or stem of the hub is hermetically sealed in the accustomed manner, so as to prevent the vacuum in the bulb. When the parts are assembled they appear as indicated in the relation shown in Fig. 1. The push-piece is limited in its movements and prevented from lateral displacement by the contact 6, which forms a stop coöperating with the extensions 12 to effect the result stated. When the push-piece is moved in one direction, a bright light is the result, and when moved in the opposite direction, a dim or low light is provided, and when moved to an intermediate position the lamp is turned off.

Having thus described the invention, what is claimed as new is:

1. In an electric lamp, the combination of a terminal cap, a plug mounted therein and provided at one face with spaced tongues, substantially U-shaped contacts embracing the respective tongues, filaments electrically connected to and controlled by the respective contacts, the plug being formed with an opening disposed transversely with respect to the tongues and opening outwardly through said face between the tongues, and a push-piece slidably mounted in the opening and carrying a contact having a limited movement between the tongues and adapted to be engaged with either selected one of the first named contacts.

2. In an electric lamp of the character described, the combination with a cap, of an insulating plug mounted therein and provided at one face with spaced dovetailed tongues, substantially U-shaped contacts embracing the respective tongues and clamped thereon, filaments of different lengths electrically connected to and controlled by the respective contacts, and a push-piece slidably mounted in the plug and provided with a contact adapted to be moved into engagement with either selected one of the first named contacts.

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

JAMES T. BIGGER. [L. S.]

Witnesses:
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MINNIE GUTHRIE.