No. 664,971. Patented Jan. 1, 1901.

E. RIORDAN.

INCANDESCENT LAMP.

(Application filed Apr. 5, 1900.)

(No Model.)

Fig. 1

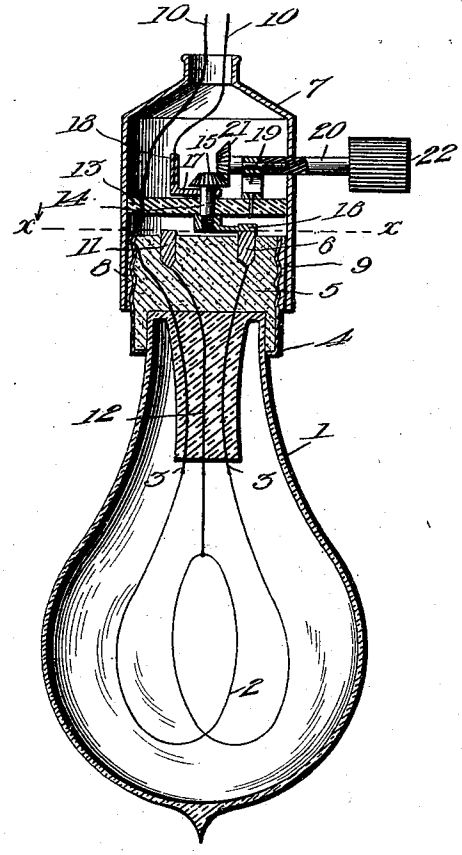


Fig. 2

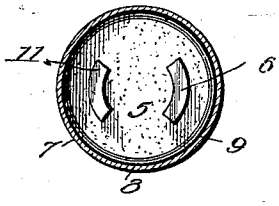
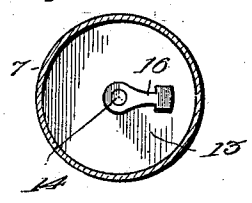


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD RIORDAN, OF NEW YORK, N. Y.

INCANDESCENT LAMP.

SPECIFICATION forming part of Letters Patent No. 664,971, dated January 1, 1901.

Application filed April 5, 1900. Serial No. 11,594. (No model.)

To all whom it may concern:

Be it known that I, EDWARD RIORDAN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Incandescent Lamps, of which the following is a specification.

This invention relates to new and useful improvements in incandescent lamps; and its primary object is to provide a device of this character having means for regulating the intensity of the light thereof.

To these ends the invention consists in the novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a longitudinal section through the lamp and its socket. Fig. 2 is a section on line *x x*, Fig. 1, taken in the direction of the arrow; and Fig. 3 is a section on the same line, taken in the opposite direction.

Referring to said figures by numerals of reference, 1 is a bulb having a filament 2 therein secured to suitably-arranged wires 3, of platinum or other suitable material, embedded within the glass of the reduced end of the bulb. This end projects into a metallic ring or cap 4, having threads formed therein, said reduced end of the bulb being secured within the cap in the usual manner, as by means of plaster-of-paris 5. One of the wires 3 contacts at its end with the threaded surface of the cap 4, while the opposite wire 3 is secured to a small contact-plate partially embedded within the plaster-of-paris, as shown. A socket 7 is provided within its lower end with an annular threaded ring 8, insulated therefrom by means of rubber 9 or other suitable material. This ring is secured to one of the wires 10, which conducts the current to the lamp, and the threads of the cap 4 of the bulb are adapted to engage with said ring.

Partially embedded within the plaster-of-paris 5 are one or more contact-plates 11, similar to the plate 6 hereinbefore described, and these are connected, by means of suitable platinum wires 12, to the filament 2 at any desired point or points thereon.

Within the socket 7 is secured a transversely-extending porcelain plate 13, through the center of which projects a short shaft 14 of a beveled pinion 15 and secured at its lower end to an arm or plate 16, adapted to contact with any one of the plates 6 and 11. A collar 17 embraces the shaft 14 and is provided with an upwardly-extending arm 18, to which is secured the second of the two wires which conduct the current to the lamp. A bracket 19 is secured to the plate 13, and journaled within the same is a shaft 20, which projects through the socket 7 and is provided at its inner end with a pinion 21, which meshes with pinion 15. The opposite end of the shaft 20 is provided with a thumb-piece or knob, as 22.

In operation the bulb-cap 4 is screwed into the ring 8 until the free ends of the contact-plates 6 and 11 are brought into the path of the arm 6. When it is desired to secure the full power of the lamp, the said arm 16 is turned, by means of the knob 22 and the pinions 15 and 21, until the same is brought into contact with the plate 6. It will thus be seen that the current from one of the wires 10 will pass from the ring 8 and the cap 4 to the wire 3 contacting therewith and will be carried through the entire filament and back through plate 6, arm 16, shaft 14, collar 17, and the second wire 10. When it is desired to reduce the intensity of the light, the arm 16 is turned until the same comes into contact with the desired plate 11, and this will obviously cut out of circuit all of that portion of the filament which is between the wire of said contact-plate and the wire of the plate 6.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

The shaft 20 and the knob 22 are preferably formed of hard rubber or other insulating material.

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

In an incandescent lamp, the combination with a bulb having a cap thereto; of contact-plates partially embedded within and insu-

lated from the cap, a filament secured to said cap and to one of the contact-plates, wires connecting the remaining contact-plates with the filament at points between its ends, a socket, an annular ring therein and insulated therefrom, said ring adapted to engage and contact with the cap, a wire secured to said ring, a partition within the socket, a shaft projecting therethrough, an arm thereon adapted to contact with any one of the contact-plates, a collar inclosing the shaft, an arm thereto, a pinion upon the shaft, a second pinion meshing therewith, a knobbed shaft secured to said second pinion, and a second supply-wire secured to the arms of the collar.

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

EDWARD RIORDAN. [L. S.]

Witnesses:
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