E. JOHNSON.

ELECTRIC LAMP REGULATOR.

APPLICATION FILED APR. 28, 1909. RENEWED NOV. 16, 1910.

993,301. Patented May 23, 1911.

Fig. 1.

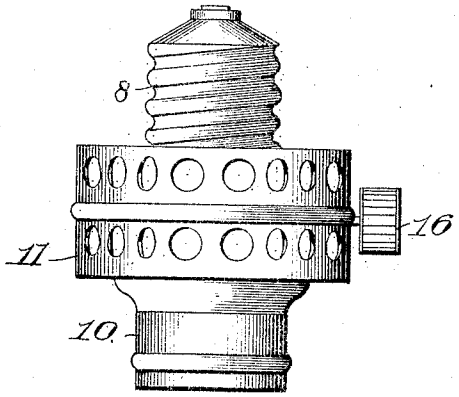


Fig. 2.

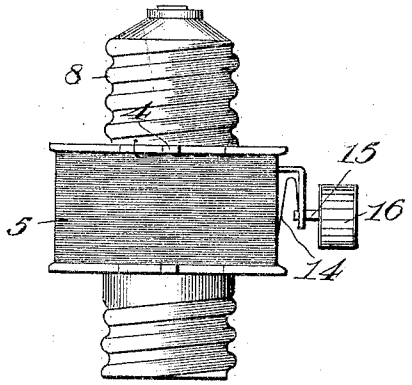


Fig. 3.

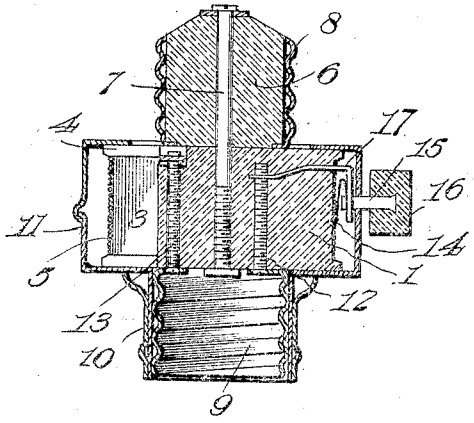
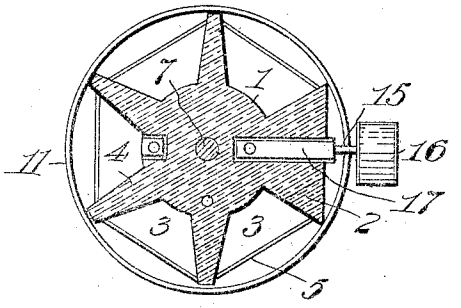


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

EMERY JOHNSON, OF NEWBERG, OREGON, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE ANY LITE INCANDESCENT LAMP REGULATOR CO., A CORPORATION OF WASHINGTON.

ELECTRIC-LAMP REGULATOR.

993,301. Specification of Letters Patent. Patented May 23, 1911.

Application filed April 28, 1909, Serial No. 492,631. Renewed November 16, 1910. Serial No. 592,718.

To all whom it may concern:

Be it known that I, EMERY JOHNSON, a citizen of the United States, residing at Newberg, in the county of Yamhill and State of Oregon, have invented a certain new and useful Electric-Lamp Regulator, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to electric lamp regulators, and is in the nature of an improvement upon and simplification of the construction set forth in Patent No. 857,404, dated June 18, 1907.

The object of the present invention is to provide a regulator adapted to be interposed in any electrical circuit and particularly between an ordinary incandescent light bulb and the socket which ordinarily receives the bulb, said regulator embodying a series of exposed coils and a shiftable brush adapted to be moved across the coils and to establish electrical contact therewith, whereby any desired number of said coils may be turned into and out of the circuit for the purpose of varying the resistance to the current passing to the filament of the bulb.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a side elevation of an electric lamp regulator embodying the present invention. Fig. 2 is a similar view thereof with the outer casing removed. Fig. 3 is a diametrical section through the same. Fig. 4 is a cross section taken about centrally of Fig. 3.

The regulator contemplated in this invention comprises a main body 1 of porcelain or other insulating material which is essentially provided with one flat side 2 while the remainder of the body may be cut away at various intervals as shown at 3 in Fig. 4 to lighten the construction and provide a series of radially disposed arms 4 around which the resistance wire 5 is adapted to be wound. The wire 5 which is of high electrical resistance is wound around the body 1 as best shown in Figs. 2 and 3, also Fig. 4, the coils or windings of the wire lying side-by-side as indicated in Figs. 2 and 3, and in so winding the wire portions thereof are brought into parallel relation to each other across the flat face 2 of the body 1, the purpose of which will hereinafter appear.

Extending from the upper side of the main body 1 is a hub-like body 6 formed of porcelain or similar non-conducting material, the same being connected to the body 1 by a metal bolt or screw 7 through which the current passes as will hereinafter appear. Surrounding the body 6 is a screw cap 8 adapted to screw into the ordinary incandescent lamp socket now in common use.

Projecting from the lower side of the body 1 is a screw base 9 adapted to receive the ordinary incandescent electric bulb or lamp. The screw base 9 is preferably surrounded by an ornamental casing sleeve 10 while the body 1 is also surrounded by an outer inclosing casing 11 which conceals the coils 5 and also the brush hereinafter referred to. The screw base 9 is secured to the body 1 by means of the screws 12 and 13.

14 designates a brush composed of a spring metal strip the free end of which rests against and is shiftable in an arcuate path across and in contact with the exposed coils 5 as indicated in Figs. 2 and 3. The outer end of this brush is fastened to the stem 15 of an operating knob 16 which passes through the outer casing 11 as shown in Figs. 3, and 4 and is in electrical contact with the metal strip 17 which is embedded in the body 1 and which connects with the metal screw 12.

The current is received in the screw cap 8 and passes through the wire 5 to brush 14, to the knob stem 15 and from thence through the strip 17 to the screw 12. The current then passes through the incandescent lamp and returns through the center bolt or screw 7 to the center point of contact of the ordinary socket. By means of the knob 16, the brush 14 may turned or partially revolved, thereby carrying the contacting extremity of said brush across the coils 5 which are bare so that in this way any number of said coils may be included in the circuit and the degree of incandescence of the filament varied in accordance with the resistance afforded by the number of coils 5. Thus, the light may be turned up or down in a manner similar to the gas in an ordinary gas jet. The device may also be manufactured very eco-

nomically and may be applied by any one to the ordinary lamp socket and electric light bulb, now in common use.

I claim:—

An electric lamp regulator adapted to be interposed betwen a lamp socket and a light bulb and comprising a reel shaped body of non-conducting material having a series of radial arms, an exposed series of connected coils of high electrical resistance disposed in the lamp circuit and strung around said arms, and a pivoted spring brush included in said circuit and adapted to have its free end shifted by a turning movement across said coils.

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

EMERY JOHNSON.

Witnesses:

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