J. C. OSBORN.

DIMMER.

APPLICATION FILED DEC. 11, 1917.

1,295,823.

Patented Feb. 25, 1919.

2 SHEETS—SHEET 1.

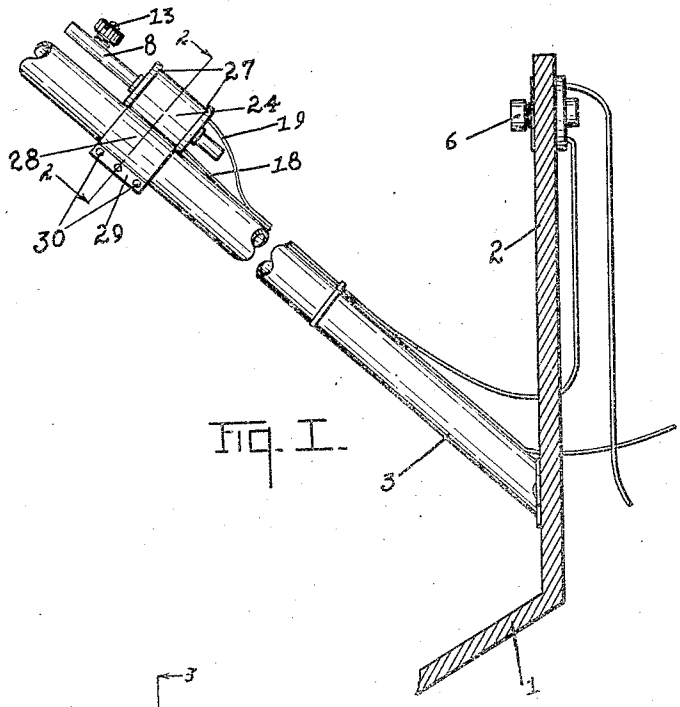


FIG. I.

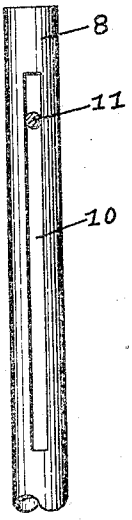


FIG. VI.

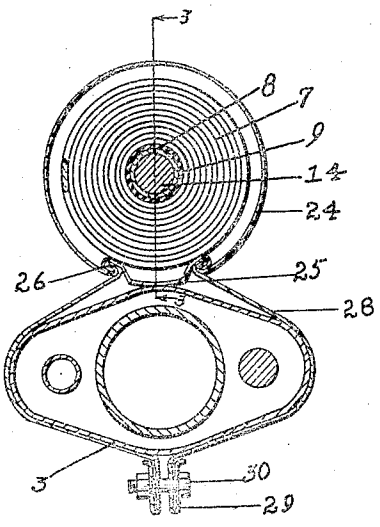


FIG. II.

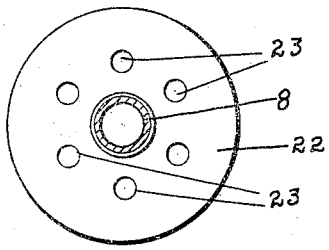


FIG. V.

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Witness

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Attorney

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2 SHEETS—SHEET 2.

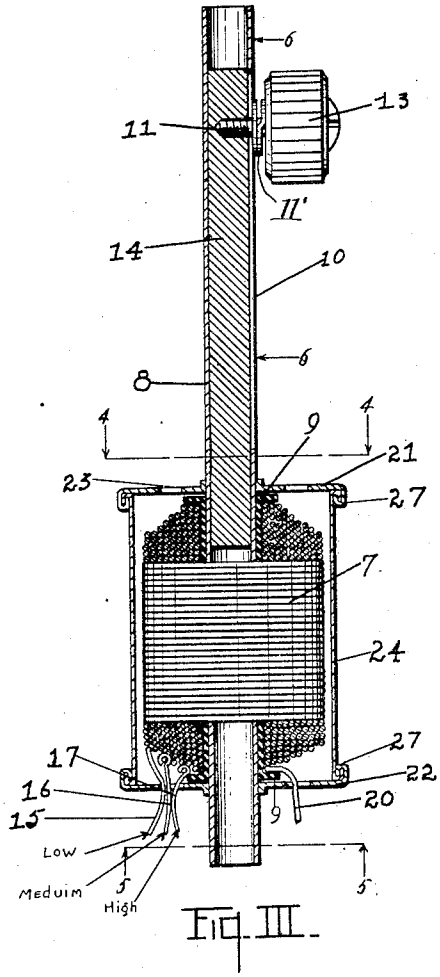


FIG. III.

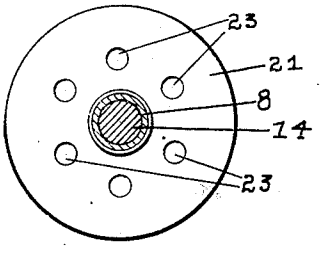


FIG. IV.

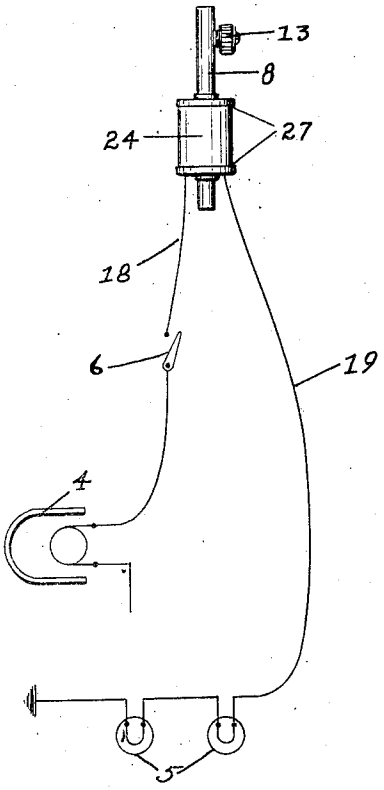


FIG. VII.

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UNITED STATES PATENT OFFICE.

JESSE C. OSBORN, OF BENTON HARBOR, MICHIGAN.

DIMMER.

1,295,823. Specification of Letters Patent. Patented Feb. 25, 1919.

Application filed December 11, 1917. Serial No. 206,606.

To all whom it may concern:

Be it known that I, JESSE C. OSBORN, a citizen of the United States, residing at Benton Harbor, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Dimmers, of which the following is a specification.

This invention relates to improvements in dimmers.

My improved dimmer is especially designed by me for use on automobiles, in which the current is supplied to the head lamps from an alternating current generator. My improvements are, however, capable and desirable for embodiment or adaptation in other relations.

The main objects of this invention are:

First, to provide an improved dimmer which may be easily applied in certain automobile lighting systems now in extensive use.

Second, to provide an improved dimmer which is easy to control or manipulate, and also one which is economical to produce and at the same time durable.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing forming a part of this specification, in which:

Figure I is a detail view showing my improved dimmer mounted upon the steering post of an automobile, the steering post and vehicle body being shown conventionally.

Fig. II is a transverse section on a line corresponding to line 2—2 of Fig. I.

Fig. III is a detail view partially in section on a line corresponding to line 3—3 of Fig. II.

Fig. IV is a transverse section on a line corresponding to line 4—4 of Fig. III.

Fig. V is a transverse section on a line corresponding to line 5—5 of Fig. III.

Fig. VI is a longitudinal section on a line corresponding to line 6—6 of Fig. III.

Fig. VII is a diagrammatic view showing the electrical connection of the dimmer to the generator and lamps.

In the drawing similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, 1 represents the body of an automobile, 2 the dash, and 3 the steering post thereof. The generator 4 and the lamps 5, see Fig. VII, are shown conventionally as is also the switch 6. I provide a coil 7 which is wound upon a non-magnetic cylinder 8, there also being insulation 9 between the cylinder and the winding. The cylinder projects from the winding at both ends. The upper projecting end of the cylinder is longitudinally slotted at 10 to receive the stem 11 of the finger piece 13, of the core 14. This core 14 is of soft iron or other suitable material and is slidable in the cylinder so that it may be moved into and out of the magnetic field of the coil.

The coil is connected in series with the lamps and generator, the coil being preferably provided with a plurality of terminals 15, 16 and 17 with which the generator connection 18 may be made. These terminals 15, 16 and 17 are cut into the coil at different windings thereof thereby adapting the coil to different candle power lamps, or to provide different amounts of resistance and reactance, the terminal 18 being for the highest power lamps as it is cut into the shortest windings. The lamp connection 19 is connected to the coil terminal 20. In the structure illustrated I provide a casing comprising end members 21 and 22, perforated at 23 for ventilation, and a body formed of sections 24 and 25. These body sections are connected by longitudinal seams 26 and are secured to the end sections by the seams 27, the parts being formed of sheet metal.

The mounting straps 28 are secured to the housing body by engaging their ends in the seams 26. These straps are provided with ears 29 at their outer ends adapted to receive the bolts 30.

With the parts thus arranged, the dimmer may be quickly mounted upon a steering post and the connection made therefrom to the lamp and generator as indicated. By moving the core into the magnetic field the voltage delivered to lamps is decreased thereby lowering their brilliancy. Any amount of dimming from the minimum to the maximum may be secured. To hold the core in

its adjusted position a friction spring 11' is arranged on the stem 11 of the finger piece 13.

I have illustrated and described my improvements in the form in which I have embodied the same for use on automobiles. I have not attempted to illustrate or describe certain modifications which I contemplate as I believe the disclosure made will enable those skilled in the art to which my invention relates to embody or adapt the same as may be desired.

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

1. In a dimmer for lamps, the combination of a coil having a non-magnetic cylinder, a core slidable within said cylinder to be adjusted into and out of the magnetic field of the coil, a housing comprising end members mounted on said cylinder, a cylindrical body seamed to said end members and comprising sections having seamed connection, and straps for mounting said coil upon a steering post engaged in the seams of said body sections and having projecting ears at their outer ends adapted to receive a clamping bolt.

2. In a dimmer for lamps, the combination of a coil having a non-magnetic cylinder projecting from the winding and having a longitudinal slot in its projecting portion, a core slidable within said cylinder to be adjusted into and out of the magnetic field of the coil, and a finger piece for said core provided with friction means engaging said cylinder for holding said core in its adjusted position.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

JESSE C. OSBORN. [L. S.]

Witnesses:
M. THAR, Jr.,
R. R. MASON.