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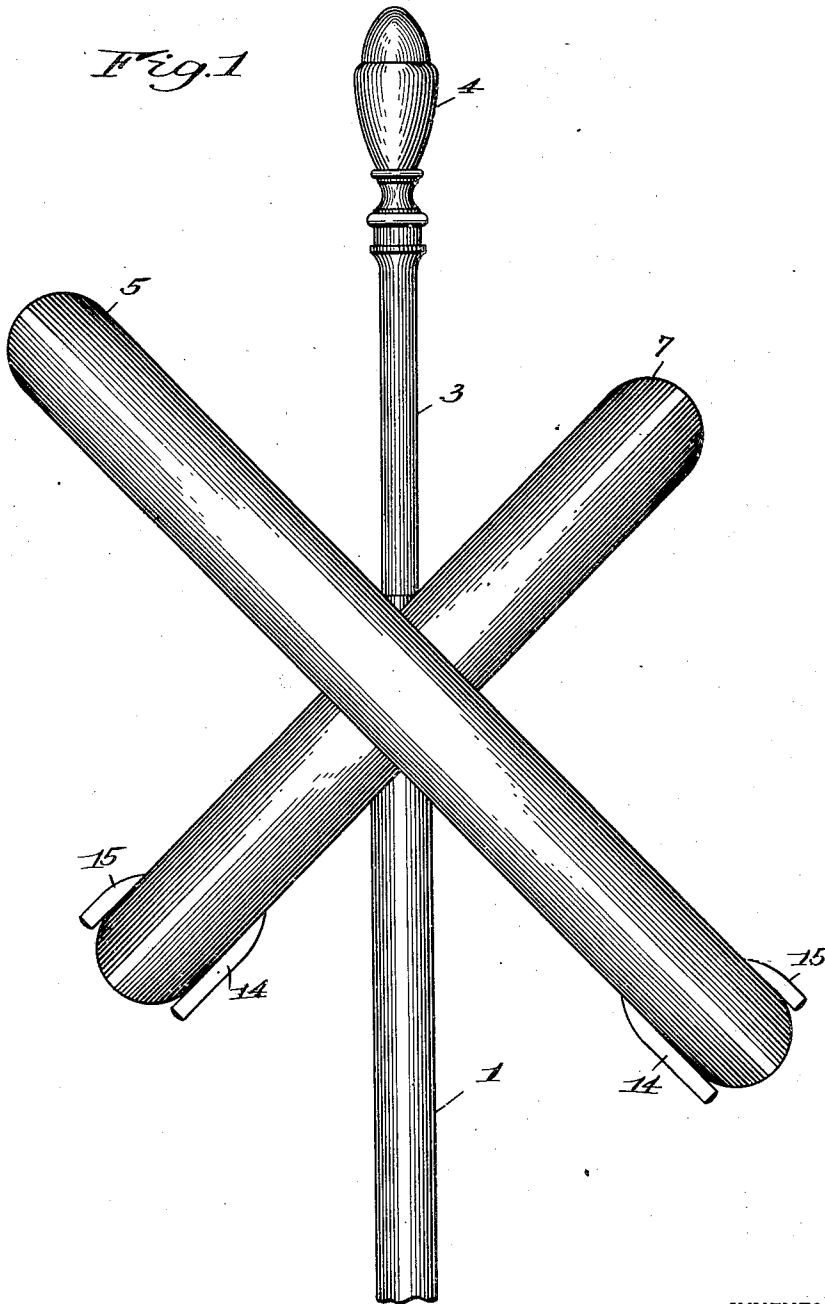
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2,419,965

ELECTRIC LIGHTING MEANS

Filed Jan. 26, 1945

3 Sheets-Sheet 1



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3 Sheets-Sheet 2

Fig. 3

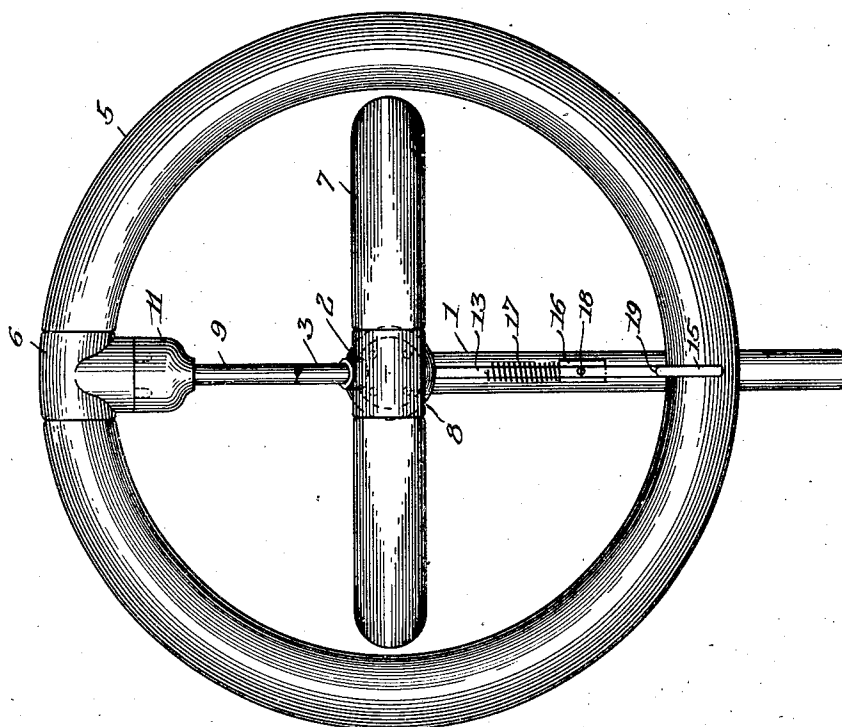
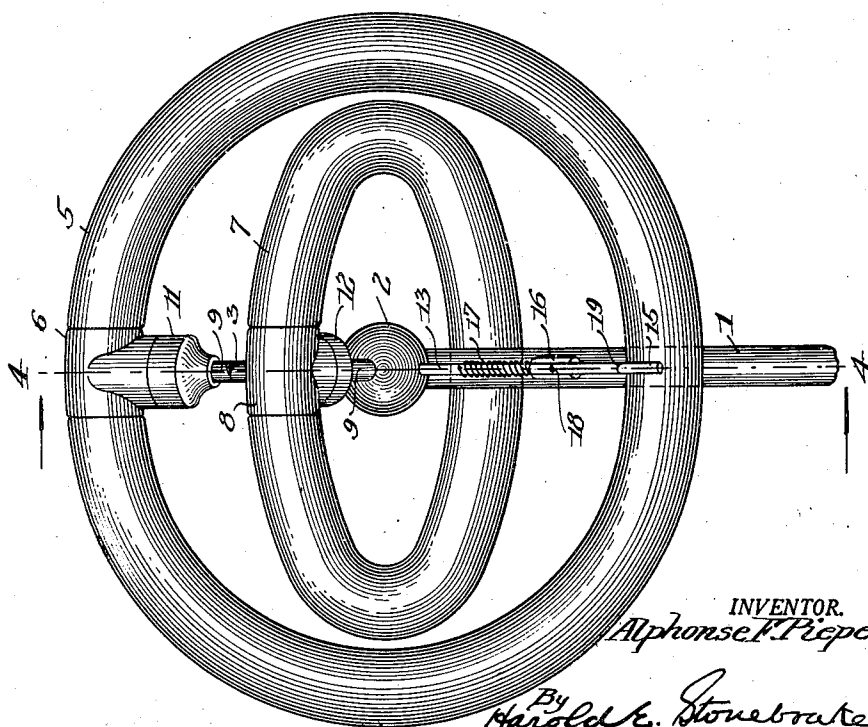


Fig. 2



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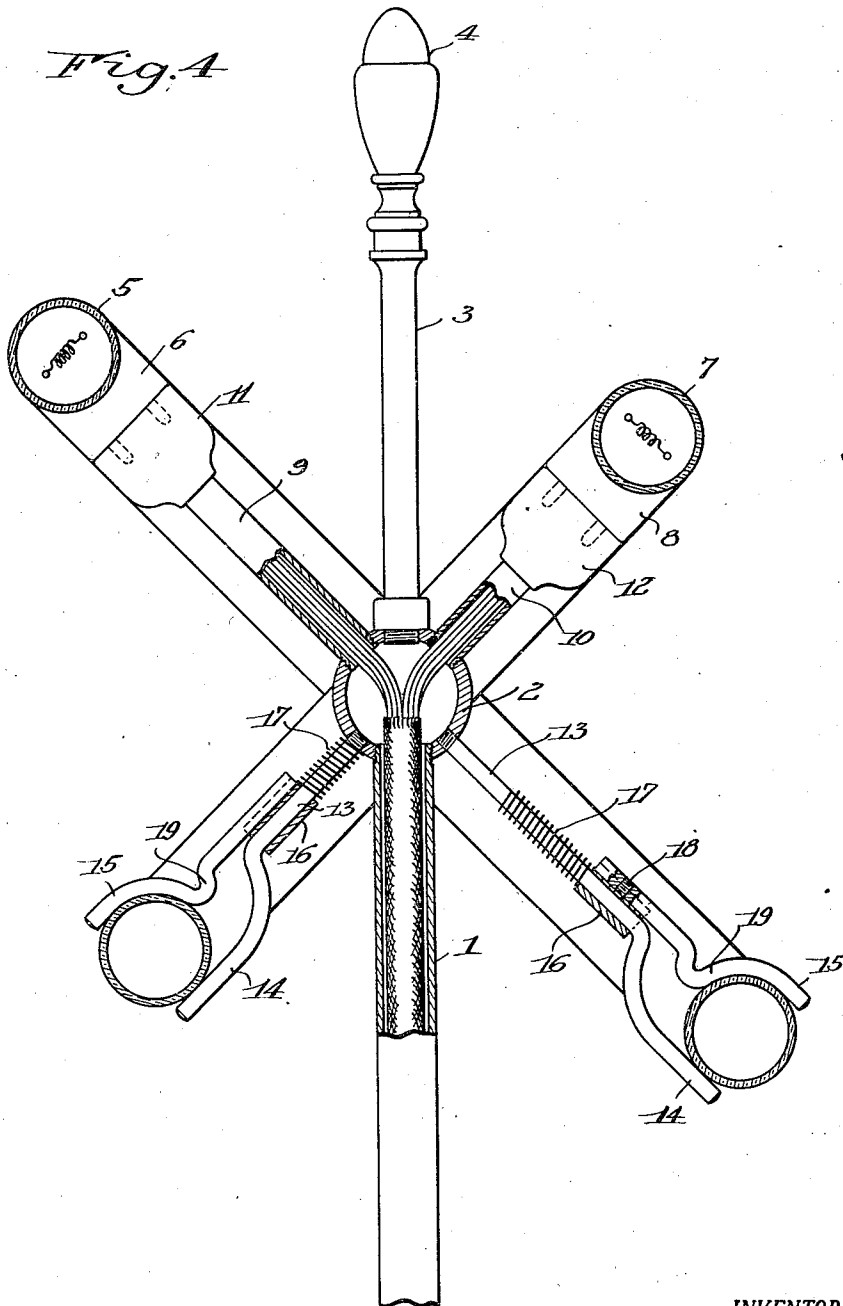
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3 Sheets-Sheet 3

Fig. 4



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UNITED STATES PATENT OFFICE

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ELECTRIC LIGHTING MEANS

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8 Claims. (Cl. 240—81)

1

This invention relates to electric lighting means, and has for its purpose to afford a pedestal lamp of the floor or table type that will accommodate circular lamps such as are manufactured in the fluorescent lighting field, and is of practical and economical construction while possessing a maximum degree of lighting efficiency.

A further purpose of the invention is to afford a pedestal type structure in which a plurality of lamps of circular form can be efficiently arranged so as to permit their ready insertion or removal.

An additional object of the invention is to provide a structure adapted for supporting a plurality of circular lamps of different diameters, one within the other, so that the lamps are in different intersecting planes and adequately supported at their lower portions oppositely to the plug connections.

Still another purpose of the invention is to afford a structure in which a plurality of circular lamps of different diameters can be arranged in different intersecting planes so as to give maximum lighting efficiency and to facilitate insertion or removal of the lamps.

Still a further object of the invention is to afford a simple and practical construction that can be economically manufactured and is designed especially to hold two circular lamps, one within the other, arranged in different intersecting planes and supported by instrumentalities disposed in another plane perpendicular to the planes occupied by the respective lamps, so as to give maximum distribution of light and minimum obstruction to or interference with the light emitted from the lamps.

To these and other ends, the invention consists in the construction and arrangement of parts that will appear clearly from the following description when read in conjunction with the accompanying drawings, the novel features being pointed out in the claims following the specification.

In the drawings:

Fig. 1 is a side elevation of a lamp constructed in accordance with a preferred embodiment of the invention;

Fig. 2 is a parallel perspective of the same;

Fig. 3 is a view in elevation looking toward one edge of the inner lamp and toward a side of the outer lamp, and

Fig. 4 is a central vertical sectional view on the line 4—4 of Fig. 2.

The invention as applicable to lighting equipment of various types including floor or table pedestal lamps, and is illustrated in the present em-

2

bodiment in connection with a pedestal lamp including a tubular vertical post or standard 1 through which the conducting wires extend to the sockets, the post being mounted on a floor or table base, not shown, and where fluorescent lamps are used, the necessary reactance elements may be located at any convenient point on the post or in some other suitable location convenient for controlling the lamps.

Mounted at the upper end of the vertical post 1 is a hollow body 2 that may be of spherical or other desired shape and attached to the upper end of the body 2 is a rod 3 provided at its upper end with the ornamental top piece 4 which is removable from the rod 3 and is employed to hold in place the conventional shade, not shown, that is secured between the ornamental piece 4 and the rod 3 and surrounds the lamps, now to be described.

The illustrated construction is designed to accommodate two fluorescent lamps, each of which is circular or in the form of a complete ring, the lamps being of different diameters and located one within the other in different intersecting planes. The larger lamp is designated at 5 and provided with a plug 6, while the smaller lamp is indicated at 7 and provided with a plug 8, the smaller lamp 7 being positioned within the larger lamp 5 and arranged in an intersecting plane, preferably at right angles to the larger lamp, and both lamps disposed at angles of 45° to the vertical.

In order to maintain the lamps in this relative position, the vertical post is provided with socket-carrying arms and retaining means, all mounted in a plane perpendicular to the planes occupied by the lamps, and the lamps are preferably supported by arms 9 which are hollow to receive the conducting wires from the body 2 on which the arms are mounted, said arms being provided at their outer ends with the sockets 11 and 12 respectively that receive the aforementioned plugs 6 and 8 on the lamps. The post 1, arms 9 and 10, and sockets 11 and 12 are all arranged in a single vertical plane perpendicular to the planes occupied by the circular lamps, and the arms 9 and 10 receive and carry the conducting wires from the hollow body 2 to the sockets into which the lamp plugs are inserted, although the details of the sockets, conducting wires and lamps are conventional and form no part of the invention.

In the construction shown, the arms 9 and 10 are located so that the connecting plugs of the lamps are at the uppermost parts of the lamps

when inserted into operative position in the sockets, each lamp being in a plane inclined to the vertical preferably at an angle of 45°, and in order to support the lower part of each lamp in proper position, retaining means are provided engageable with the lower portions of the lamps and acting to hold them in the desired inclined planes.

To accomplish this, retaining means is provided for each lamp, preferably consisting of a rod in line with or extending in the same direction as the arm which supports the lamp, as designated at 13, said rod being fixedly attached to the hollow body 2, and including a downwardly extending finger 14 which engages under the lower surface of the bottom portion of the lamp while the opposite surface or upper side of the bottom portion of the lamp is engaged by an upwardly projecting finger 15 that is attached to or formed as part of a sleeve 16 slidable on the rod 13. The sleeve 16 is preferably held in its lowermost position by means of a spring 17 surrounding the rod 13 and having its inner end suitably attached thereto while its outer end engages the sleeve 16 to move it endwise outwardly of the rod, and 18 designates a set screw or other fastening device adapted to hold the sleeve 16 fixedly in any adjusted position if desirable, so as to bring the upper finger 15 into proper relation with the lamp.

In positioning a lamp for operation, its plug is first brought in line with the cooperating socket and the lower portion of the lamp is then positioned between the fingers of its retaining means, after which the lamp is moved upwardly until the plug can be positioned over the socket. The lamp is then moved downwardly to engage the plug in its sockets, and the lower portion of the lamp is held by the retaining means, the upper finger of which is yieldable to permit the movements just described. It is desirable as a lamp is moved bodily in the direction to disconnect its plug from the socket that the upper finger 15 be automatically moved endwise to facilitate removal of the lamp, and in order to accomplish this, the upper finger 15 includes an inwardly curved portion 19 embracing the periphery of the lamp at its inner portion and adapted to be engaged and moved by the lamp as the latter is moved bodily with relation to its socket. Thus by moving the lamp in an upward direction to disconnect, the upper finger 15 and the sleeve on which it is mounted are forced upwardly along the rod 13 far enough to permit the lamp plug to clear its socket and the lamp can then be swung laterally of the socket and moved downwardly in the opposite direction to release it from engagement with the retaining means, after which it can easily be removed by vertical movement around the post 1.

In connecting the lamps, the smaller or inside lamp is first positioned by moving it downwardly around the vertical post and its lower portion brought between the upper and lower fingers of its retaining means. Then by moving the lamp bodily upwardly in the direction of its support until its plug is in position to clear its socket, the connecting plug of the lamp is moved bodily laterally until it is alined with the socket, and then the lamp is moved downwardly to bring the plug into operative engagement with its socket. During this operation, the spring-operated upper finger 15 is yieldable to permit the required movement of the lamp while its lower portion is engaged with the retaining means, and when completely assembled the upper and lower fingers 15 and 14 hold the lower part of the lamp in position with its plug properly engaged in its socket

and the lamp maintained in an inclined plane perpendicular to the central vertical plane occupied by the supporting arms and retaining means. After the smaller lamp is assembled, the larger diameter lamp can be similarly positioned to occupy an inclined plane preferably perpendicular to the plane of the smaller lamp. Both lamps are preferably arranged at angles of 45° to the vertical and are removed by operations reverse to that just described, the larger diameter lamp being removed first.

While the invention has been described with reference to the particular construction shown, it is not confined to the details illustrated, and this application is intended to cover such modifications or departures as may come within the purposes of the improvements or the scope of the following claims.

I claim:

1. Electric lighting means including a vertical post, a plurality of circular lamps positioned in different intersecting planes and each having a single inwardly extending connecting plug, and supporting sockets for the plugs mounted on the post on opposite sides and inclined upwardly thereto, the sockets and post being in a single plane perpendicular to the planes occupied by the lamps.

2. Electric lighting means including a vertical post, a plurality of circular lamps positioned in different intersecting planes and each having a single inwardly extending connecting plug, arms mounted on the post on opposite sides and inclined upwardly thereto, and supporting sockets for the plugs mounted at the ends of the arms, said post, arms, and sockets being in a single vertical plane perpendicular to the planes occupied by the lamps.

3. Electric lighting means including a plurality of circular lamps of different diameters located one within the other in different intersecting planes with inwardly extending connecting plugs, a vertical post, supporting sockets for the plugs mounted on the post on opposite sides and inclined upwardly thereto, the sockets and post being in a single plane perpendicular to the planes occupied by the lamps, and retaining means mounted on the post in the plane with said sockets, said retaining means being inclined downwardly in a direction opposite to the sockets and engaging the lower portions of the lamps at points opposite to the plugs.

4. Electric lighting means including a plurality of circular lamps of different diameters located one within the other in different intersecting planes with inwardly extending connecting plugs, a vertical post, arms mounted on the post on opposite sides and inclined upwardly thereto, supporting sockets for the plugs mounted at the ends of the arms, said post, arms, and sockets being in a single vertical plane perpendicular to the planes occupied by the lamps, and retaining means mounted on the post in the plane with said arms, said retaining means being inclined downwardly in a direction opposite to the sockets and engaging the lower portions of the lamps at points opposite to the plugs.

5. Electric lighting means including a plurality of circular lamps of different diameters located one within the other in different intersecting planes with inwardly extending connecting plugs, a vertical post, supporting sockets for the plugs mounted on the post on opposite sides and inclined upwardly thereto, the sockets and post being in a single plane perpendicular to the

5

planes occupied by the lamps, retaining means mounted on the post in the plane with said sockets, said retaining means being inclined downwardly in a direction opposite to the sockets and engaging the lower portions of the lamps at points opposite to the plugs, each of said retaining means including a rod terminating in a downwardly projecting finger extending under a lamp, and an upwardly projecting finger engaging over the lamp and adjustable endwise of said rod.

6. Electric lighting means including a plurality of circular lamps of different diameters located one within the other in different intersecting planes with inwardly extending connecting plugs, a vertical post, supporting sockets for the plugs mounted on the post on opposite sides and inclined upwardly thereto, the sockets and post being in a single plane perpendicular to the planes occupied by the lamps, retaining means mounted on the post in the plane with said sockets, said retaining means being inclined downwardly in a direction opposite to the sockets and engaging the lower portions of the lamps at points opposite to the plugs, each of said retaining means including a rod terminating in a downwardly projecting finger extending under a lamp at a point opposite to its plug, and an upwardly projecting finger engaging over the lamp and adjustable endwise of said rod, said last mentioned finger including a portion engaging the inner surface of the lamp and adapted to be moved thereby when the lamp is disconnected from its socket.

7. Electric lighting means including a plurality of circular lamps of different diameters located one within the other in different intersecting planes with inwardly extending connecting plugs, a vertical post, supporting sockets for the plugs mounted on the post on opposite sides and inclined upwardly thereto, the sockets and post being in a single plane perpendicular to the planes occupied by the lamps, retaining means mounted on the post in the plane with said sockets, said retaining means being inclined downwardly in a direction opposite to the sockets and engaging the lower portions of the lamps at points opposite to the plugs, each of said re-

6

taining means including a rod terminating in a downwardly projecting finger extending under a lamp at a point opposite to its plug, a sleeve slidable on said rod, an upwardly extending finger carried by the sleeve and engaging over the lamp, and means holding the sleeve in adjusted position on the rod.

8. Electric lighting means including a plurality of circular lamps of different diameters located one within the other in different intersecting planes with inwardly extending connecting plugs, a vertical post, arms mounted on the post on opposite sides and inclined upwardly thereto, supporting sockets for the plugs mounted at the ends of the arms, the post, arms, and sockets being in a single plane perpendicular to the plane occupied by the lamps, retaining means mounted on said post in the plane with said sockets, said retaining means being inclined downwardly in a direction opposite to the sockets and engaging the lower portions of the lamps at points opposite to the plugs, each of said retaining means including a rod in alinement with the corresponding arm and terminating in a downwardly projecting finger extending under a lamp at a point opposite to its plug, a sleeve adjustable on said rod, and an upwardly extending finger carried by the sleeve and engaging over the lamps, said last mentioned finger including a portion engaging the inner surface of the lamp and moved thereby when the lamp is disconnected from its sockets.

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