

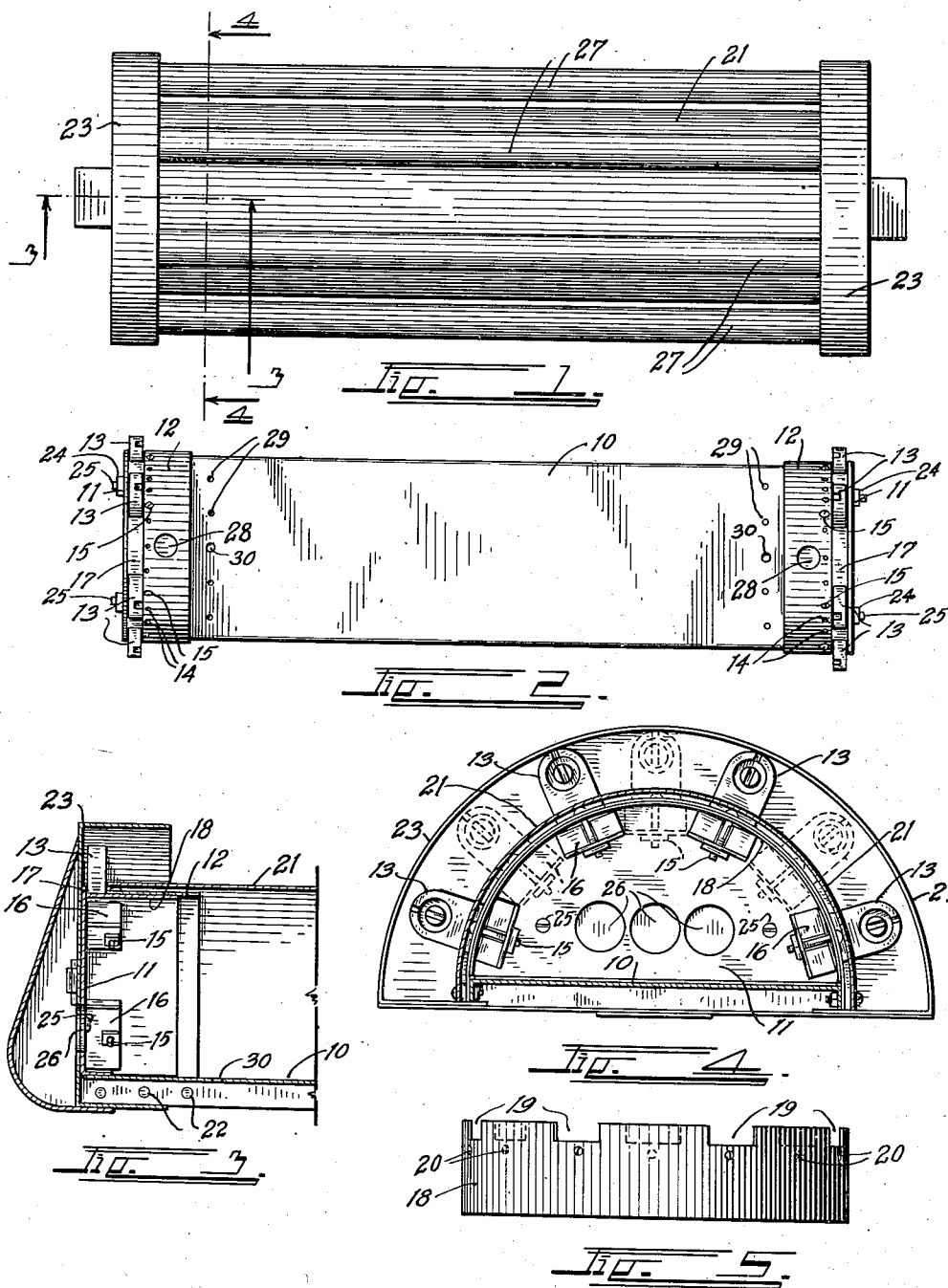
July 15, 1941.

A. O. LOCKE

2,249,318

FLUORESCENT LAMP FIXTURE

Filed Feb. 10, 1941



INVENTOR.

BY ANDREW O. LOCKE.

A. O. Locke

ATTORNEY.

UNITED STATES PATENT OFFICE

2,249,318

FLUORESCENT LAMP FIXTURE

Andrew O. Locke, Denver, Colo., assignor to The
Electron Corp., Denver, Colo., a corporation of
Colorado

Application February 10, 1941, Serial No. 378,239

7 Claims. (Cl. 240-78)

This invention relates to a fluorescent light fixture. Such fixtures are designed to support one or more elongated fluorescent lamp tubes and, heretofore, each fixture has been designed to support a given number of tubes.

The principal object of this invention is to provide a simple fixture which will be adaptable to support any desired number of tubes and yet which will have the appearance of having been designed for that particular number of tubes.

Such a construction greatly reduces the cost of manufacture since the same component parts can be used in all fixtures regardless of the number of fluorescent tubes to be placed therein.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a face view of the complete improved fixture arranged to support four fluorescent tubes;

Fig. 2 is a similar view with the end caps, tubes and reflector removed;

Fig. 3 is an enlarged fragmentary section through one extremity of the improved fixture, taken on the line 3-3, Fig. 1;

Fig. 4 is an enlarged cross section, taken on the line 4-4, Fig. 1; in this view the fluorescent tubes have been removed for convenience of illustration; and

Fig. 5 is a detail view of the spacing plate employed in the invention.

The improved fluorescent light fixture is mounted on a back plate 10, which is preferably channel-shaped in cross section so that when in place only its edges contact the supporting surface. At each extremity of the back plate, a semi-circular end plate 11 is permanently welded or otherwise secured. An arch plate 12 is also permanently secured at its extremities to the back plate 10 in spaced relation to each of the end plates 11 to outline a receptacle slot 17. Thus the back plate 10, the end plates 11 and the arch plates 12 form a single unitary member.

The width of the receptacle slot 17 between the arch plates 12 and the end plates 11 is just sufficient for the passage of the arm of a typical fluorescent tube receptacle bracket 13. A plu-

5 rality of screw holes 14 are formed in the arch plates 12 adjacent the slot 17 for the reception of attachment screws 15 for attaching the receptacle brackets 13 in place. The receptacle brackets 13 are standard equipment for fluorescent tube fixtures. They are provided with enlarged bases 16 which prevent them from passing entirely through the slot 17 and are held in place therein by means of the screws 15.

10 There are thirteen of the screw holes 14 uniformly spaced in each arch plate of the fixture illustrated. Thus, by employing every other hole seven brackets may be placed in each slot 17 as indicated in broken line in Fig. 4. By omitting the alternate brackets, four can be uniformly spaced as indicated in solid line in Fig. 4. By starting with second hole at each side and by using the intermediate holes not used in Fig. 4, six brackets can be uniformly spaced about the arch plates. Thus any number of fluorescent tubes from one to seven may be used in the same fixture. As illustrated, four of the fluorescent tubes 27 are used.

Adaptable spacing plates 18 are provided with 25 each fixture. The plates are formed with a plurality of spaced, "knock-out" notches along one of their edges, as indicated in broken line in Fig. 5. These "knock-out" notches are weakened portions which can be easily broken from the plate to provide receptacle bracket receiving notches 19 in its edges. For a seven tube fixture, the seven notches would be "knocked out" and for the four tube fixture, illustrated, four of the notches would be opened as illustrated. The plate 18 slips inside of the arch plate 12 to close the slot 17 between the receptacle brackets and is fixedly secured in place therein by means of the same screws 15 which hold the receptacle brackets 13 in place. Each spacing plate is provided with a screw hole 20 for each of its "knock-out" notches.

It can be readily seen that with the above equipment a fixture can be quickly assembled to hold any desired number of tubes in an artistic, balanced arrangement.

After the socket members and the spacing plates are in place, a convex reflector plate 21 is secured over the entire assembly to conceal the screws 15 and the holes 14. The reflector plate is secured along the flanged edges of the base member by means of suitable attachment screws 22. After the tubes are in place over the reflector, suitable flanged end caps 23, having a semi-circular outline, are secured to each of the end plates 11 by means of clamp nuts 24 threaded

on studs 25 projecting from the end plates. The completed fixture will then present the appearance of Fig. 1.

Each end plate is preferably provided with three openings 26 for receiving the standard starters for the tubes 27. The arch plates 12 are also provided with openings 28 for receiving starters. Thus, openings are provided for any number of starters corresponding to the number of tubes to be used. These openings and the starters therein will be completely concealed when the reflector plate 21 and the end caps 23 are in place.

The back plate 10 is provided with suitable hanging openings 29, by means of which it may be secured to any desired hanger or other support, and with suitable wire openings 30 through which the feed wires can be extended.

An advantage of the improved fixture resides in the fact that if after installation it is desired to increase or decrease the number of tubes employed, this may be quickly and easily done by changing the position of the receptacle brackets while the fixture is in place.

Another advantage is that all fixtures in a given establishment will be uniform in appearance, even though they may vary in the number of fluorescent tubes employed.

While a specific form of the improvement has been described and illustrated herein, it is desired to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired secured by Letters Patent is:

1. A lighting fixture for fluorescent tubes comprising: a back plate; an end plate secured to the back plate at each extremity thereof; an arch plate secured to the back plate immediately inside of each of the end plates, there being a receptacle slot between each end plate and its arch plate; means for securing fluorescent tube receptacle brackets in each of said slots; and a reflector plate extending between the opposite sides of the back plate and concealing the arch plates.

2. A lighting fixture for fluorescent tubes comprising: a back plate; an end plate secured to the back plate at each extremity thereof; an arch plate secured to the back plate immediately inside of each of the end plates, there being a receptacle slot between each end plate and its arch plate; a plurality of fluorescent tube receptacle brackets projecting outwardly through said slot; means for securing said receptacle brackets to the arch plates at any desired spacing; and a curved reflector plate extending from side to side of the back plate and concealing the arch plates.

3. A lighting fixture for fluorescent tubes comprising: a back plate; an end plate secured to the back plate at each extremity thereof; an arch plate secured to the back plate immediately inside of each of the end plates, there being a receptacle slot between each end plate and its arch plate; a plurality of fluorescent tube receptacle brackets projecting outwardly through said slot; means for securing said receptacle brackets to the arch plates at any desired spacing; a curved spacing plate fitted inside of each arch plate,

each spacing plate being provided with notches in its edge for the reception of said receptacle brackets; and a curved reflector plate extending from side to side of the back plate and concealing the arch plates.

4. A lighting fixture for fluorescent tubes comprising: a back plate; an end plate secured to the back plate at each extremity thereof; an arch plate secured to the back plate immediately inside of each of the end plates, there being a receptacle slot between each end plate and its arch plate; a plurality of fluorescent tube receptacle brackets projecting outwardly through said slot; means for securing said receptacle brackets to the arch plates at any desired spacing; a curved spacing plate fitted inside of each arch plate, each spacing plate being provided with notches in its edge for the reception of said receptacle brackets; a curved reflector plate extending from side to side of the back plate and concealing the arch plates; and semi-circular, inwardly-flanged, cap members secured to each end plate, the flange thereof concealing said receptacle brackets.

5. A lighting fixture for fluorescent tubes comprising: a back plate; semi-circular end plates secured on each extremity of said back plate; a relatively flat, arcuately-arched member extending from side to side of the back plate in spaced relation to each end plate so as to leave a uniform slot between the two, said arched member being provided with a plurality of spaced bolt holes along said slot; a plurality of tube receptacles extending outwardly through said slot; and bolts extending through said holes holding said receptacles in place.

6. A lighting fixture for fluorescent tubes comprising: a back plate; semi-circular end plates secured on each extremity of said back plate; a relatively flat, arcuately-arched member extending from side to side of the back plate in spaced relation to each end plate so as to leave a uniform slot between the two, said arched member being provided with a plurality of spaced bolt holes along said slot; a plurality of tube receptacles extending outwardly through said slot; bolts extending through said holes holding said receptacles in place; and a curved spacing plate within each of said arch plates, one edge of said spacing plate being notched to allow the plate to pass the receptacles so as to close the notch therebetween.

7. A lighting fixture for fluorescent tubes comprising: a back plate; semi-circular end plates secured on each extremity of said back plate; a relatively flat, arcuately-arched member extending from side to side of the back plate in spaced relation to each end plate so as to leave a uniform slot between the two, said arched member being provided with a plurality of spaced bolt holes along said slot; a plurality of tube receptacles extending outwardly through said slot; bolts extending through said holes holding said receptacles in place; a curved spacing plate within each of said arch plates; and removable portions in one edge of said spacing plate which when removed provide notches for the reception of the receptacle brackets.

ANDREW O. LOCKE.