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FLUORESCENT TUBULAR DISCHARGE LAMP FITTING

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Fig. 1.

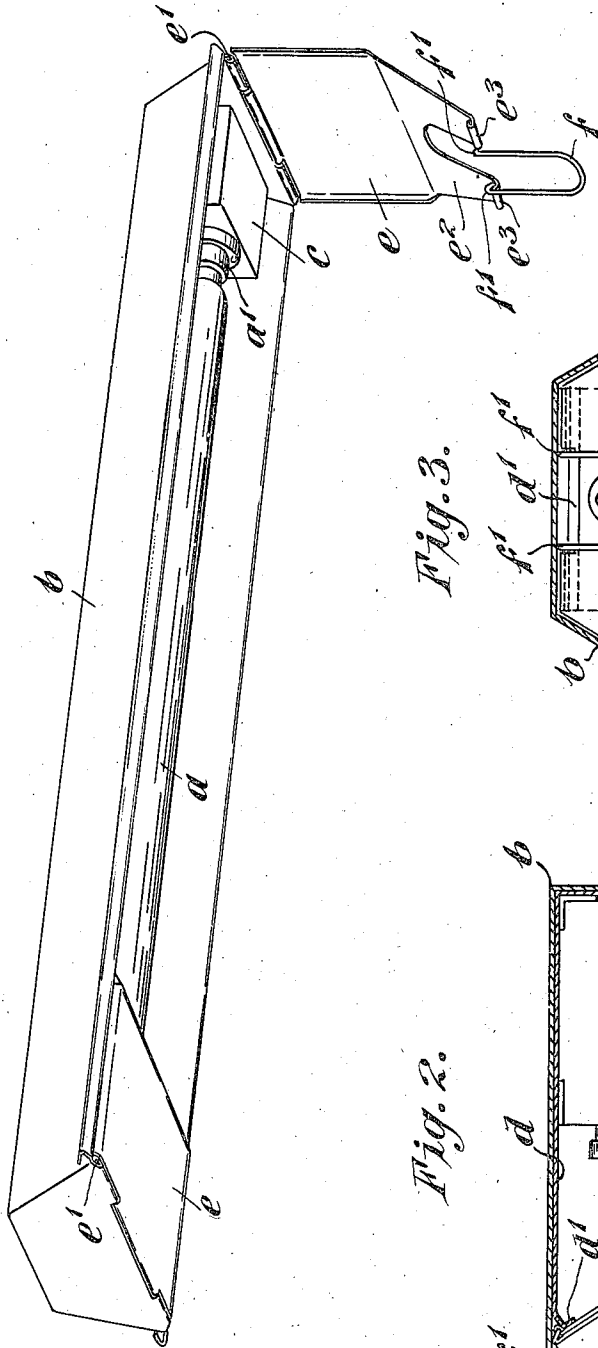


Fig. 3.

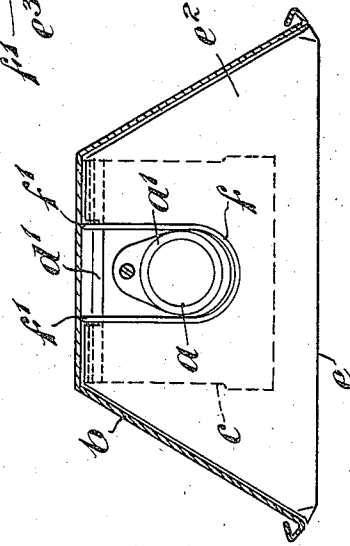
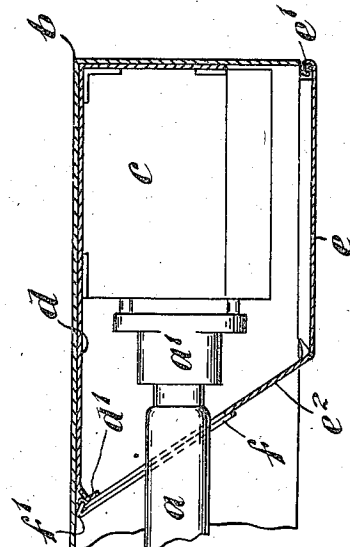


Fig. 2.



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FLUORESCENT TUBULAR DISCHARGE LAMP
FITTING

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2 Claims. (Cl. 240-78)

This invention has reference to improvements connected with fluorescent tubular discharge lamp fittings, and essentially to fittings of this character which incorporate a substantially rectangular or semi-cylindrical trough, which 5
trough in addition to providing a mounting there-
in for each end of the lamp or lamps also pro-
vides reflecting surfaces for the light rays emitted
from the lamp or lamps.

In connection with lamps of this character it is 10
necessary to provide what is known as auxiliary
control gear for the lamp or lamps, say by way
of example the choke coil, condenser, starter
switch etc., and this gear is usually mounted on
the roof or ceiling of the trough in a more or 15
less separate box or cover, or may be mounted
adjacent the ends thereof within a separate hous-
ing or housings which may be connected with
the trough.

The primary object of the present invention is 20
to utilise what may be termed the dead space
which normally obtains at the end of and within
each trough as a mounting for the aforesaid gear
and thereby to avoid extensions or protuberances
on the trough casing of the fitting. A further 25
object is to enclose the aforesaid gear by means
of a cover plate which is pivotally connected to
the ends of the trough and is of such a contour as
to afford a ready means of access to this gear
while the outer surface thereof will deflect or 30
reflect in a measure the light rays from the
lamp or lamps so as to avoid what may be termed
any dead end or dark shadow portions within
the trough. A still further object is to combine
or associate with the cover plate a means of 35
readily effecting a release of the plate from its
locked or closed position within the trough which
means will automatically attain a non-obstruc-
tive position relative to the cover plate when the
cover plate occupies its closed or locked position.

The invention consists of a fluorescent tubular 40
discharge lamp fitting incorporating an inverted
trough-like reflector casing, characterised by the
disposition of the auxiliary control gear for the
lamp or lamps within the end or ends of the
trough so as to form with the trough casing a
self-contained unit, the control gear being pro- 45
tected by a hinged cover plate or plates which
serve to constitute part of the reflecting surface
for the lamp. The invention further embodies a
catch lever which is pivotally mounted in the
free edge of each of the said plates and is adapted 50
when in the locked position to contact the roof
of the trough and to lie in proximity to the outer

face of the plate, the said lever being operated
to effect a camming release of the plate.

A preferred means of carrying the present in-
vention into practice as applied to an inverted
trough reflector fitting adapted to contain a
fluorescent tubular lamp is illustrated by the ac-
companying sheet of drawings, in which:

Fig. 1 is a perspective view wherein part of the
control gear is located within each end of the
trough, one part whereof is enclosed by the hinged
cover plate shown in the closed position, while
the other part thereof is adapted to be enclosed
by the cover plate at the other end shown in
the open position.

Fig. 2 is a longitudinal sectional elevation of
the one end of the inverted trough fitting show-
ing the hinged cover plate and catch lever in the
closed and locked position.

Fig. 3 is an end elevation of the parts seen in
Fig. 2 looking from the direction of the longi-
tudinal axis of the lamp.

In the illustrated embodiment of the invention
the auxiliary control gear is disposed in part at
each end of the lamp in what may be termed co-
axial disposition to the longitudinal axis of the
lamp *a*. This control gear which generally com- 25
prises a condenser, starter switch, suppressor and
choke is mounted in part at the one end of the
inverted trough reflector *b* and in part at the
other end thereof. In the illustration of the in-
vention it is assumed that the condenser, starter
switch and suppressor are located at the left-
hand end of the trough while the choke *c* is
located at the right-hand end. This control 30
gear is securely mounted by means of a cranked
carrier plate *d*, clips or other device to the end or
inner side of the roof or ceiling and/or to the
walls of the trough *b*, and has the usual lead
connections to the lamp socket *a*¹. The gear is 35
protected or enclosed within the ends of the
trough *b* by means of pivotally mounted cover
plates *e* hinged along the lower edge of the ends
of the trough by means of hinge pins *e*¹, the cover
plates incorporating a slotted inclined section *e*²,
the outer surface of which is adapted to form a
reflecting surface so that in addition to the re-
flection of the lamp rays from the inner longi-
tudinal face of the trough *b* there is a degree
of reflection from the inclined end cover plates
thereby avoiding what would ordinarily be a dark
shadowed or dead end section.

The free extremity of the inclined section *e*²
of the hinged cover plate is beaded at *e*³ and this
bead is adapted to engage with a sheet-metal
catch *d*¹ which forms the outer end of the sheet-

metal carrier plate *d* secured to the underside of the ceiling or roof of the trough. By this means the hinged plate is firmly held in its enclosing position by a snap action, when the lamp is ready for use.

Pivotaly associated with the beaded end *e*³ of each cover plate *e* is a catch lever *f* which partakes of the form of a length of wire, the free ends of which extend laterally in common alignment and are adapted for pivotal location within the beading *e*³. Intermediate these ends the wire is looped and extends downwardly in the form of a relatively long U the base of the centre of which forms the handle or grip of the catch lever *f*. Formed in the length of the wire intermediate the central U-section and the laterally extending ends are a pair of small loops *f*¹ which are adapted to be brought into contact with the underside of the roof of the inverted trough and effect a camming action whereby the catch lever *f* is automatically turned and through the camming pressure obtaining as a result of this contact caused to occupy a position parallel to and in close proximity with the inclined outer section *e*² of the cover plate as clearly seen in Fig. 2 of the drawing, the U-shaped central section of the catch lever *f* partially surrounding and being located below the tubular fluorescent lamp *a* which is contained within the fitting.

When it is desired to effect a release of the cover plate it is only necessary to exert a pull in an outward and downward direction on the base section of the U-shaped part of the lever *f*, that is, the lower part of the lever, with the result that the pair of loops *f*¹ adjacent the outwardly directed or lateral extremities which form the hinge of the catch lever are forced against the underside of the roof of the trough *b* and thereby effect a withdrawal of the beaded edge *e*³ of the cover

plate from contact with the resilient catch *d*¹ which is formed or provided on the underside of the roof of the trough.

By this means a neat, compact and effective means is provided for enclosing the auxiliary control gear when in use and for attaining access thereto when required for inspection, renewal, or replacement, and there is provided a ready release means for the hinged cover plate by means of the catch lever associated therewith when it is desired to obtain such access to the parts associated with the ends of the lamp contained within the ends of the trough.

I claim:

1. A fixture for a tubular fluorescent lamp, comprising, in combination, a lamp housing open on one side, means in the end of the housing for electrical connection to the lamp, a cover for said means having one end hinged to the housing and having a portion at its other end notched to fit around the tubular lamp, the notched portion having a reflecting outer surface and being inclined toward the open side of the housing so as to reflect light from the lamp through the open side of the housing, a catch at said other end for securing the cover in closed position, and a lever for releasing the catch extending toward the open side of the housing.
2. A fixture for a tubular fluorescent lamp, comprising, in combination, a lamp housing open on one side, means in the end of the housing for electrical connection to the lamp, a cover for said means having one end hinged to the housing and having a notch in its other end to fit around the tubular lamp, a catch at said other end for securing the cover in closed position, and a lever for releasing the catch extending toward the open side of the housing.

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