July 10, 1962 E. D. TILLSON ET AL 3,043,951

UNIVERSALLY MOUNTABLE LIGHTING FIXTURE

Filed Oct. 9, 1959 2 Sheets-Sheet 1

Fig 1.

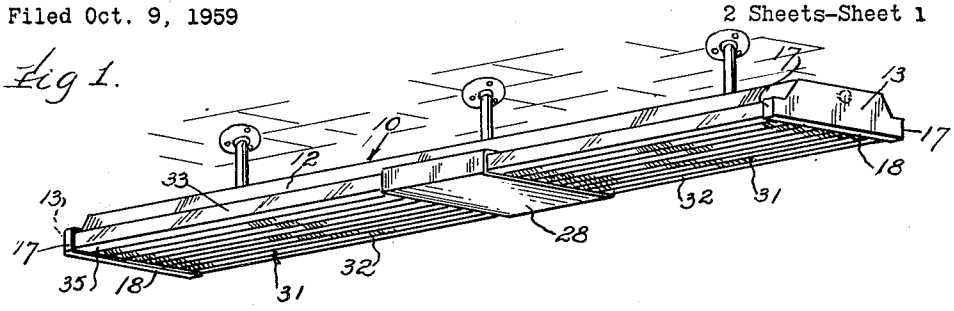


Fig 2.

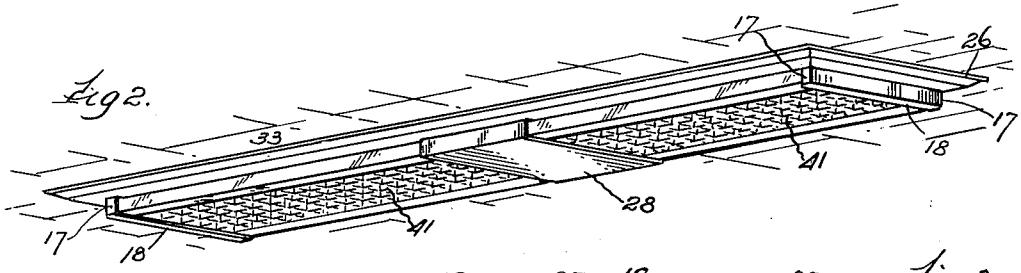


Fig 3.

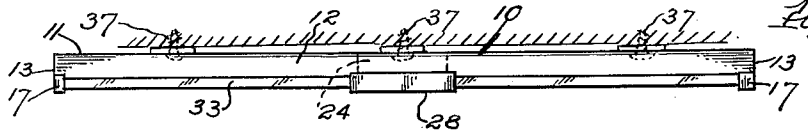


Fig 4.

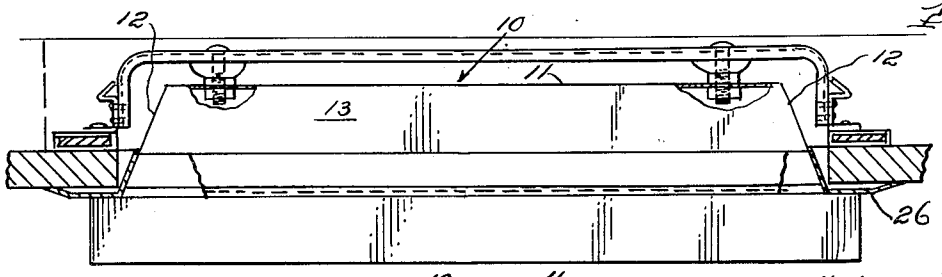


Fig 5.

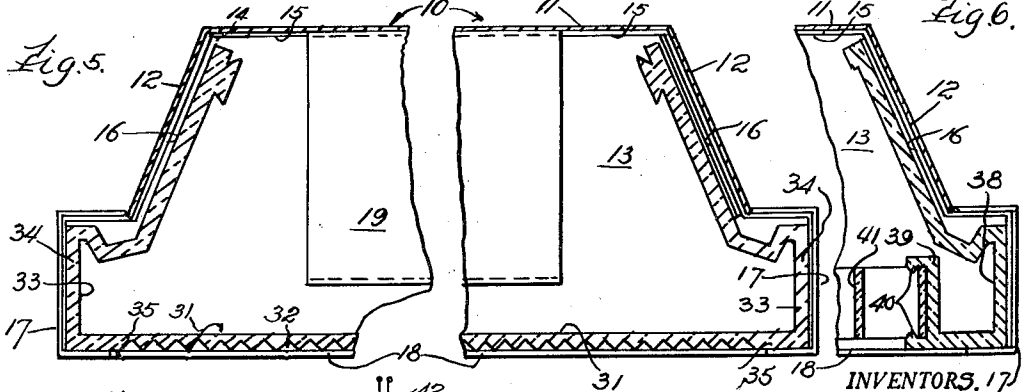


Fig 6.

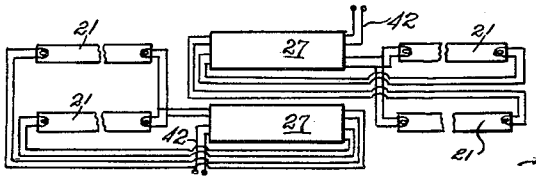


Fig 10.

INVENTORS.

Edwin D. Tillson 2nd

BY Edward J. Hrok.

James R. McCaughan

Attorney.

July 10, 1962 E. D. TILLSON ET AL 3,043,951

UNIVERSALLY MOUNTABLE LIGHTING FIXTURE

Filed Oct. 9, 1959 2 Sheets-Sheet 2

Fig 7.

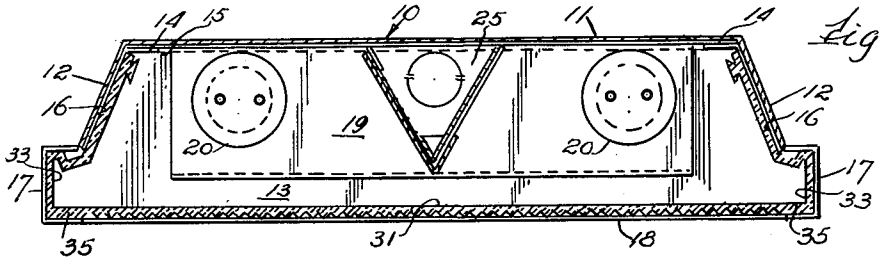


Fig. 8.

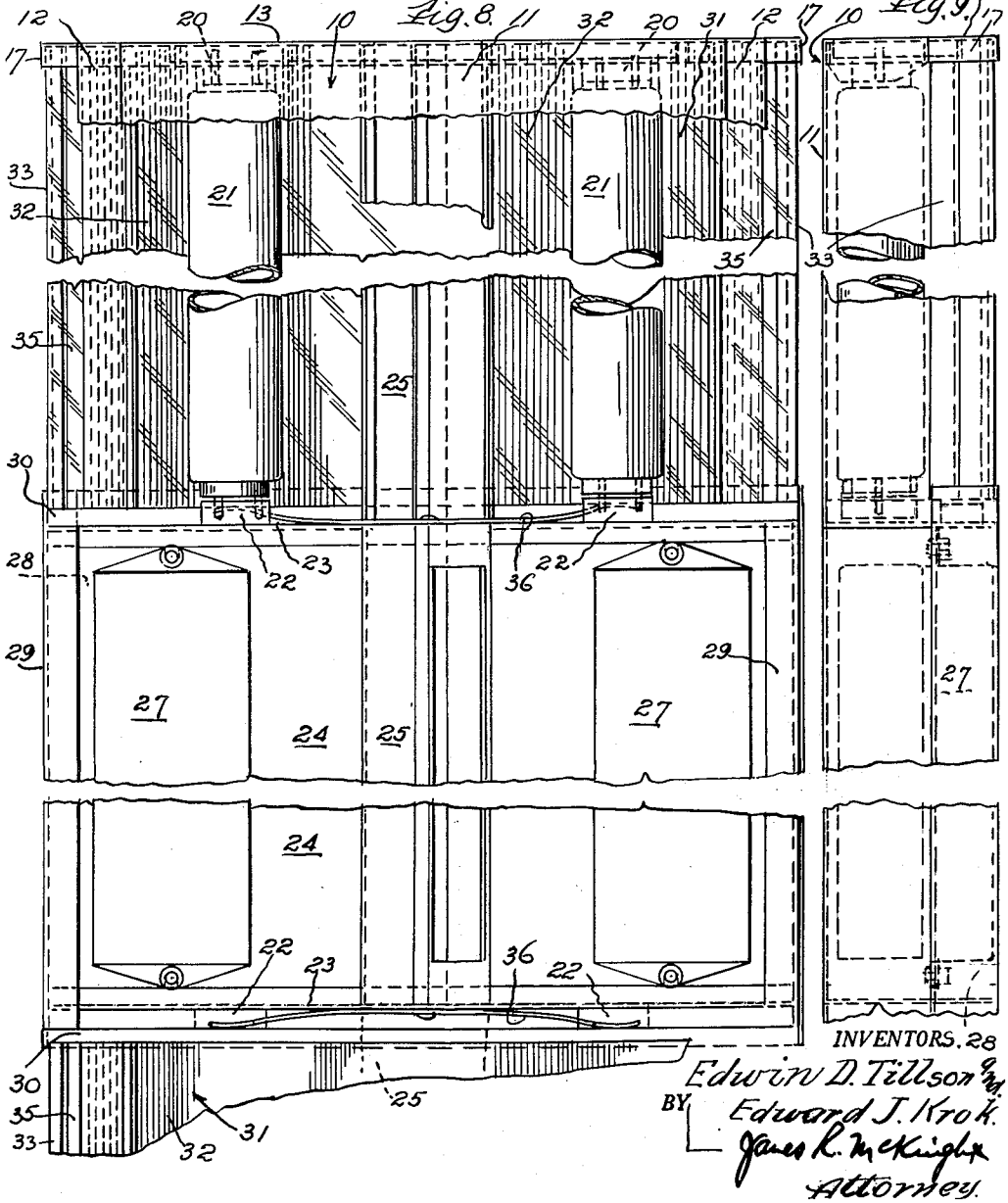


Fig. 9.

INVENTORS.

Edwin D. Tillson

BY Edward J. Krok

James R. McKnight

Attorney

United States Patent Office 3,043,951 Patented July 10, 1962

3,043,951

UNIVERSALLY MOUNTABLE LIGHTING FIXTURE

Edwin D. Tillson, Evanston, and Edward J. Krok, Chicago, Ill., assignors, by mesne assignments, to Curtis-Electro Lighting, Inc., Chicago, Ill., a corporation of Illinois

Filed Oct. 9, 1959, Ser. No. 845,369
1 Claim. (Cl. 240—51.11)

Our invention relates to a lighting fixture which may be mounted in any one of the three current mediums, namely (1) attached to the ceiling; (2) suspended from the ceiling by suitable means; and (3) held within a recess in the ceiling.

Frequently, an architect will specify in plans a certain type of fixture mounting. For instance, an architect will specify that the light fixtures be suspended by rods from the ceiling. Ordinarily such specification requires lighting fixtures of a certain shape and design. Then the person for whom the plans were made decides that he would rather have the lighting fixtures directly attached to the ceiling. This usually requires a different shape and design of lighting fixtures. If a further change is made to lighting fixtures held within a recess in the ceiling, still another shape and design of lighting fixtures would be required. This is because the three different modes of mounting require different attaching conditions, and have to avoid different obstructions. It is among the objects of our invention to solve the foregoing problems, and provide a lighting unit which is adapted to be mounted by any one of the three mediums—i.e., (1) direct to the ceiling, (2) suspended from the ceiling, (3) held by a recess in the ceiling.

Heretofore there has been such a lack of standardization in the industry that a lighting fixture designed for one mode of attachment could not be used if this mode were later changed. An object of our invention is to provide a single lighting fixture adapted for multiple attachment by the three current mediums.

Another object of our invention is to save the expense of discarding lighting fixtures originally specified and buying additional ones for a new attachment means, as well as the expense of removing obstructions or remodeling the ceiling or walls to accommodate the new lighting fixtures.

Still another object of our invention is to provide a lighting fixture of desired shallowness and yet of sufficient depth to house the necessary ballast.

Our invention also comprises such other objects, advantages and capabilities as will later more fully appear, and which are inherently possessed by our invention.

While we have shown in the accompanying drawings a preferred embodiment of our invention, yet it is to be understood that the same is susceptible of modification and change without departing from the spirit of our invention.

Referring to the drawings, FIG. 1 is a perspective view of one embodiment of our fixture mounted in suspended position; FIG. 2 is a perspective view of another embodiment of our fixture mounted in a recess; FIG. 3 is a side elevational view of the same directly mounted to the ceiling; FIG. 4 is an end view of our fixture mounted in a recess; FIG. 5 is a detailed sectional view broken away to show the embodiment of FIG. 1; FIG. 6 is a detailed sectional view broken away of the embodiment shown in FIG. 2; FIG. 7 is an end sectional view; FIG. 8 is a broken bottom plan view at one end; FIG. 9 is a side elevational view; and FIG. 10 is an electrical wiring diagram of applicants' fixture.

The embodiment selected to illustrate our invention comprises a top metal reflector **10** having a flat top portion **11** and a pair of opposite diagonally downwardly and outwardly extending side portions **12**. At each open end of reflector **10** a metal end plate **13** is provided having an inwardly bent surrounding flange **14**.

Flange **14** has a top portion **15** and a pair of opposite diagonally downwardly and outwardly extending side portions **16** bearing against, co-extensive with and attached by suitable welding to the undersurface of top portion **11** and the inner surfaces of side portions **12**, respectively.

Each end plate **13**, with its flange **14**, has a pair of opposite right angled wing portions **17** extending outwardly from the lower ends of said portions **16**, then downwardly and then inwardly to form bottom ledge **18**.

To the inner surface of each end plate **13** is attached a socket channel **19** supporting a pair of spaced sockets **20** to removably receive the ends of fluorescent light tubes **21**. These tubes **21** extend inwardly to sockets **22** in end wall **23** of central housing **24**.

Wireway **25** is V-shaped and extends substantially parallel to and between tubes **21** and from one end plate **13** through central housing **24** to the opposite end plate **13**. Wireway **25** acts as a protector and guide for wires **42** leading through openings to sockets **20** and **22** on both sides of central housing **24** and to the transformers **27** housed in central housing **24** and to an electrical source of supply. The central housing is of sufficient size to accommodate and house ballast **27** without substantially enlarging the over all depth of the lighting fixture.

On the other end of central housing **24** is another wall **23** supporting sockets **22** to receive the inner ends of another pair of fluorescent tubes leading outwardly to sockets **20** in socket channel **19** in the opposite end plate **13**.

Attached to central housing **24** is cover plate **28**, having a pair of right angled wing portions **29** conforming in contour to wing portions **17**, and also having a floor providing a ledge **30** on the outer side of each center wall **23**.

A pair of lens panels **31** are provided. Each lens panel is a one piece item made of plastic or other suitable light transmitting material, and has a transparent prismatic central light directing portion **32** and a pair of integral opposite side portions **33** of translucent milky white color for light diffusion control providing light of desired low brightness at these locations. Each of side portions **33** has a wing portion **34** and a bottom end **35**. Bottom ends **35** rest on ledges **18** and **30**, and wing portions **34** extend within wing portions **17** and **29**. A spring **36** attached to each center wall **23** exerts outer pressure on its lens panel **31** for holding it on the ledges.

When our lighting fixture is mounted in a recess, we may also employ flanges **26** which are attached to side walls **12** as shown in FIGS. 2 and 4.

Our lighting fixtures may be attached direct to a ceiling by screws **37** extending through top **11** into the ceiling.

Such screws **37** may also be used to attach a plurality of spaced rods to our lighting fixture for suspending it from the ceiling, the rods being suitably attached to the ceiling.

In some instances, instead of panels **31** with light directing portion **32**, we may use opposite side panels **38** of translucent milky white color, each having a wing portion **39** and a pair of spaced fingers **40** to receive and hold bottom honeycomb louvers **41** between them.

In some instances, we may also provide for portion **32** in lens **31** to be in the form of a tilted prism to direct light at an angle to illuminate a vertical surface such as the wall of a room or a blackboard.

Having thus described our invention, we claim:

A universally mountable lighting fixture comprising a top reflector having a flat top portion and directly from said top portion a pair of opposite side portions extend-

ing diagonally downwardly and outwardly therefrom, said top reflector having open ends and an open bottom, a pair of end plates attached to said reflector and closing the open ends of said reflector, each of said end plates having at its lower portion a pair of spaced enlarged wing portions and a connecting bottom ledge, a central housing attached to said top reflector and having spaced center walls and spaced side walls, each side wall having at its lower portion an enlarged wing portion similar in shape to those of said end plates and a connecting bottom ledge, a pair of sockets mounted on each of said end plates and said center walls of said central housing, a pair of fluorescent light tubes mounted in said sockets and extending between an end plate and a central wall of said central housing, said light tubes having connection with an electrical source of supply, a pair of light transmitting panels, each of said panels having a bottom portion, an open top, spaced side portions, and lower spaced enlarged wing portions each similar in shape to but slightly smaller than an enlarged wing portion of said end plates and said central housing, said panels extending between and resting on the bottom ledge of one of said end plates and on the bottom ledge of one of said side walls of said central housing, and bearing against the inner surfaces of the spaced wing portions of the end plates and the spaced wing portions of the central housing, said fixture adapted by its flat top for direct or suspended attachment to a ceiling, said flat top also being narrow so as to avoid contact with obstructions and adapted by the spaced wing portions of the end plates and the central housing for mounting in a recess in a ceiling.

References Cited in the file of this patent

UNITED STATES PATENTS

2,476,856	Geenens	July 19, 1949
2,526,074	Guth	Oct. 17, 1950
2,543,713	Yeager	Feb. 27, 1951
2,744,716	Zingone	May 8, 1956
2,864,939	Bodian et al.	Dec. 16, 1958
2,902,591	Lipscomb	Sept. 1, 1959