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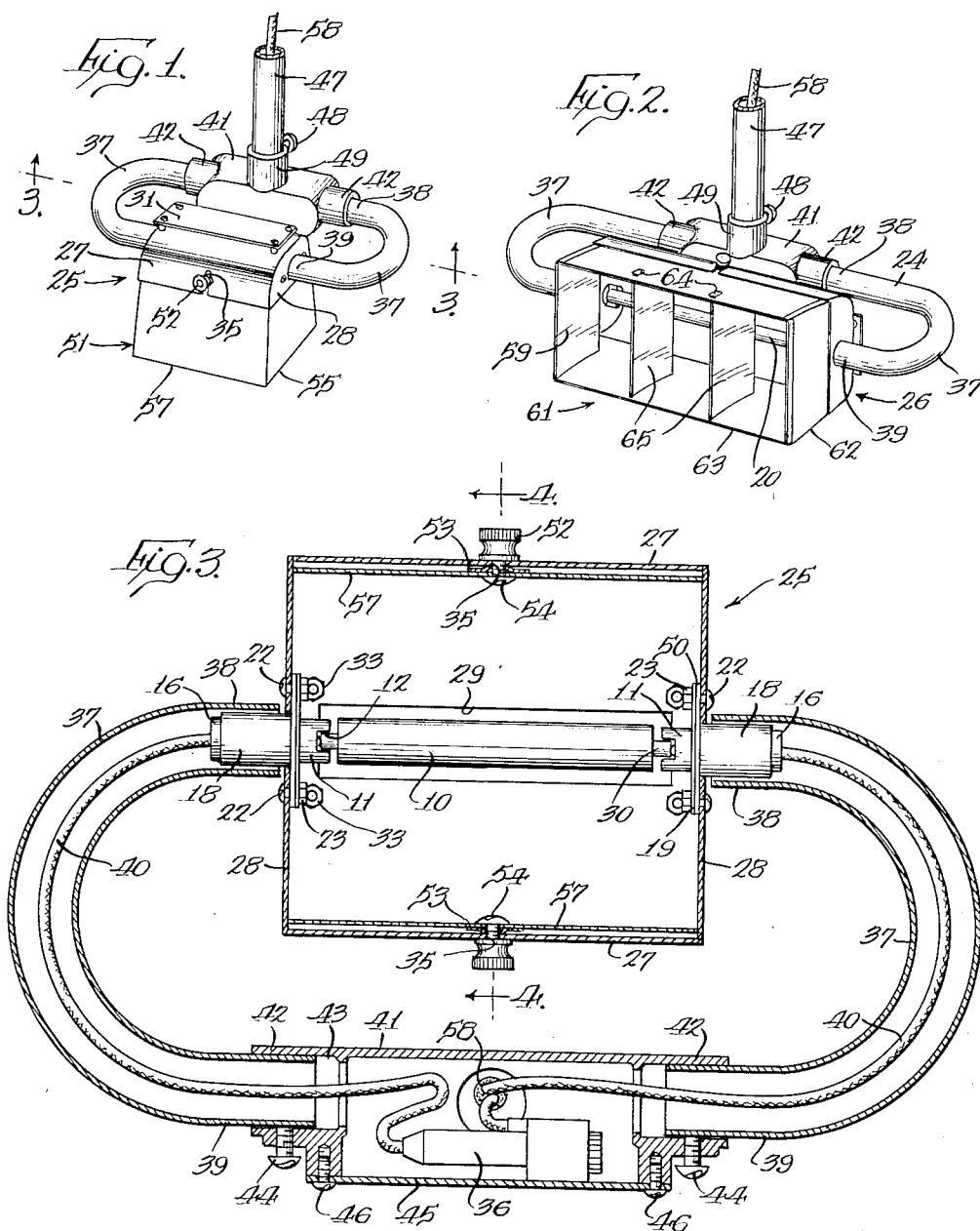
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ADJUSTABLE LIGHTING FIXTURE

Filed April 11, 1960

2 Sheets-Sheet 1



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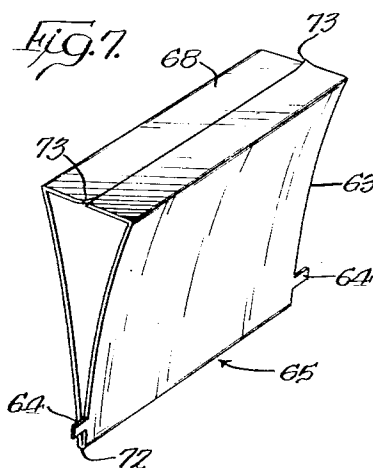
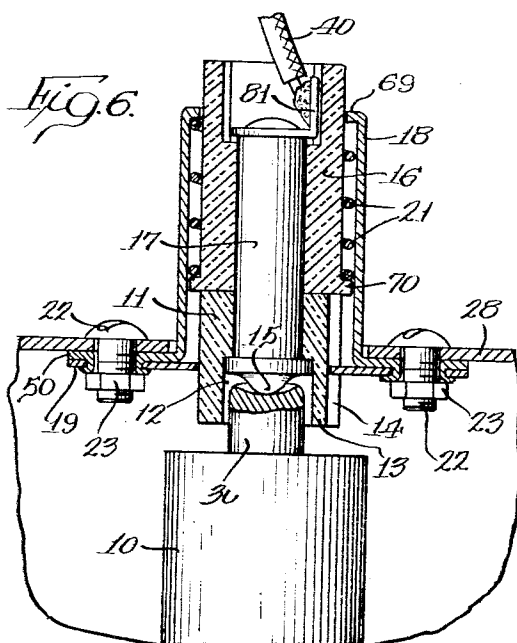
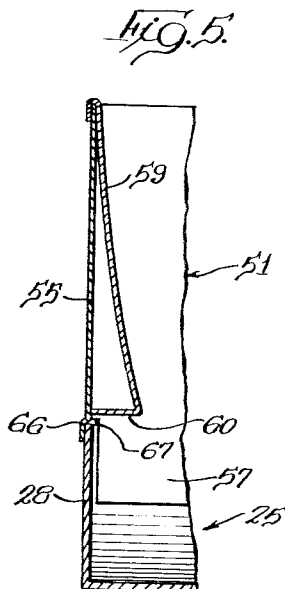
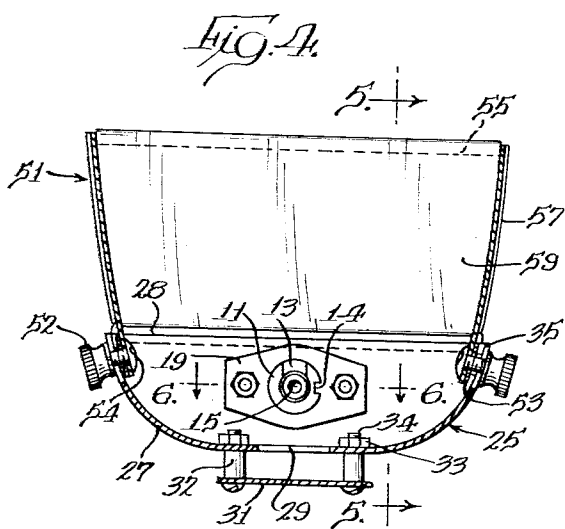
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2 Sheets-Sheet 2



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2,997,574
ADJUSTABLE LIGHTING FIXTURE
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The present invention relates to reflective lighting fixtures designed for electrically connecting and supporting thin, cylindrical, illuminating tubes, especially those having a high heat output per unit of surface area.

Recently there has been developed an elongated quartz lamp which, because of its outstandingly high illuminating output per unit of length, is very useful for general commercial and industrial lighting applications, such as display windows and signs, sports fields, construction work, and airplane landing installations. This lamp, currently manufactured by the General Electric Company under the designation "Quartzline," within its $\frac{3}{8}$ " diameter and $4\frac{1}{2}$ " length, reportedly develops 10,500 lumens and consumes 500 watts. A longer 10-inch, 1500-watt version develops 33,000 lumens. It is understandable that a lamp operating at such high output in an envelope of small surface area will operate at a high surface temperature. Its normal surface operating temperature is 600°C. , which is above the kindling point of many materials. Its quartz envelope is capable of notwithstanding intense heat, rapid changes in temperature, and exposure to moisture, but the lamp base temperature must not exceed 350°C. Therefore, for this quartz lamp to be commercially usable, the heat generated must be dissipated by quite rapid air movement, or otherwise, to prevent overheating the adjacent electrical components or other physical fixtures surrounding it. On the other hand, the lamp should be protected from high-velocity cold wind, since its envelope surface temperature should not be cooled below 250°C. It has been found that the lamp must be operated in a horizontal position within four degrees. The present invention is directed toward a novel mounting for such tubular lamps which meets these stringent requirements.

The principal object of the present invention is to provide a novel physical and electrical mounting which may be readily usable for interior and exterior lighting applications employing a quartz tube lamp having very high illuminating output per unit of length and surface area and an associated high operating temperature, and in which the lamp reflector is rather universally adjustable as to position and direction of light, while always permitting the lamp to be oriented horizontally.

Another object is to provide a novel mounting for such an illuminating tube which protects its electrical wiring and associated circuit elements from the intense heat of the tube, and incorporates means for safe heat dissipation, but which protects the lamp against excessive wind cooling.

Another object is to provide a lamp holder and an adapted reflector which, as a unit, is light in weight, durable, economical of manufacture, and readily adjustable for proper installation and effective daily use.

Other objects and advantages will become apparent from the following description taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a perspective view of the embodied invention adapted to house a short ($4\frac{1}{2}$ ") quartz lamp;

FIG. 2 is a perspective view of the embodied invention adapted to house a long (10") quartz lamp;

FIG. 3 is a horizontal sectional view which may be considered as taken in the direction of the arrows substantially along the line 3—3 of FIG. 1;

FIG. 4 is a transverse sectional view taken in the direc-

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tion of the arrows along the line 4—4 of FIG. 3. For clarity, the illuminating quartz lamp has been omitted;

FIG. 5 is a broken sectional view taken in the direction of the arrows along line 5—5 of FIG. 4 for the purpose of illustrating a detail of the reflector construction and its mounting;

FIG. 6 is an enlarged fractional sectional view of the socket and terminal area, taken in the direction of the arrows along line 6—6 of FIG. 4; and

FIG. 7 is a perspective view of a reflective partition incorporated in the reflector of FIG. 2.

The embodiment of the present invention, as shown in FIG. 2, is adapted to hold the longer (10") illuminating tube 20, and, other than being longer, is substantially the same as the smaller embodiment shown in FIGS. 1, 3, and 4. A notable difference in the larger embodiment, other than general proportions, is a specially adapted reflector 61, which will be fully described hereinafter. The structure of FIGS. 5 and 6 is common to both embodiments.

With the above in mind, the following description will refer primarily to the smaller embodiment specifically, but in most instances is applicable to both.

In general, the fixture of my invention is made up of a lamp holder and housing 25, a pair of U-shaped support arms 37 therefor, and a T fitting 41 to which the arms are attached. The lamp holder portion 25 supports and partially encloses a lighting tube 10 and provides its electrical connections. The holder also acts as a partial light reflector, additional light control and reflecting surface being supplied in the form of a removable element 51 as will be explained. The lamp holder is so attached to the support arms 37 that the holder and its reflector 51 can pivot relative to the arms about the lamp's longitudinal axis so as to direct the light as required. At their opposite ends, the arms 37 are pivotally attached to the T fitting and can be locked in any set position so as to offset the lamp holder from the T fitting in almost any direction. This universality of offset is of considerable importance, since it always makes it possible to avoid positioning the lamp housing beneath the T fitting. The advisability of observing this installation limitation will be discussed subsequently.

The fixture is conveniently mounted by connecting the T fitting to the end of a conventional electrical wiring conduit which may extend from the fitting in any direction. Note that regardless of the mounting situation, the fixture elements can always be so oriented as to support the lighting tube horizontally, thus complying with a requirement for satisfactory operation specified by the tube manufacturer.

Best seen in FIG. 6 is a cylindrical metal socket housing 18 which has a flanged end portion 50 having holes for mounting the socket housing upon the lamp holder 25. Riveted to the flanged portion 50 of the socket housing 18 is a face plate 19 which has a key tabbed aperture and mounting holes that coincide with those of the socket housing 18. The socket housing and keyed face plate are secured to the lamp holder 25 by screws 22 and nuts 23.

Within the socket housing 18 is a coil spring 21 which is retained at its outward end by a narrow inwardly turned flange 69 of the socket housing 18, and at the other end by a ceramic socket body 16. The socket body 16 is a hollow cylinder and houses a solid copper electrical conductor 17 which passes therethrough axially. The leading end of this conductor provides a rounded contact point 15 and, at its opposite end, is riveted and soldered to a terminal 81, connected in turn to a wire 40. The ceramic socket body 16 is free to rotate in its housing 18, and thereby prevents the terminal wire 40 from being twisted.

Between the socket body 16 and the contact point 15 is a ceramic socket head 11 which is separate from the rotatable socket body 16. The socket head 11 has a key slot 14 which prevents the socket head rotating relative to the keyed face plate 19. The socket head 11 has a cup-like recess 12, with a portion of the side wall cut away as at 13. The socket head 11 is oriented by the keyed face plate 19 so that its cut away portion 13 is exposed outwardly (as seen in FIG. 3). This provides easy access into the cup-like recess 12 for the lamp terminals for electrically connecting and physically mounting the lamp 10. The spring 21 provides a bias by which the socket head 11, the socket body 16, and the enclosed conducting member 17 with the attached terminal wire 40 can move longitudinally within the fixed socket housing 18. Two such socket assemblies are mounted in axial alignment on the vertical end walls 28 of the lamp holder 25. Because of the spring bias, they securely hold the lamp between them, the lamp being provided with cylindrical contact members 30 having concave ends which mate with the rounded contact points 15 of the conductors 17.

The body 25 of the lamp holder is constructed of one piece of highly reflective sheet aluminum, having sides 27 which are shaped concavely inside for preferred focusing and reflecting. The vertical end walls 28 are flat and parallel and may be joined to the curved sides 27 by the soldering, welding, riveting, or in any suitable manner, thus forming a firm, generally rectangular cavity for the lamp 10.

In the roof of the lamp holder 25 is a large rectangular vent 29 (about 1" x 4" in the smaller embodiment of FIG. 1). This vent provides an outlet for the air within the cavity of the lamp holder 25 which is heated by the lamp 10. Since heated air tends to rise, air enters at the bottom of the lamp holder, circulates around the hot lamp and over the hot metal surfaces, and passes outwardly through the vent 29. The lamp and metal surfaces, particularly the lamp terminals, are thus air-cooled to a reasonable and safe temperature.

A rectangular baffle plate 31 is secured about $\frac{3}{8}$ " above and parallel to the vent 29 by tubular spacers 32, nuts 33, and bolts 34. This baffle 31 is larger than the vent 29 (about $1\frac{3}{4}$ " x 5" in the smaller embodiment) and reflects light which would otherwise shine upwardly through the slot 29. If it is desired to light the ceiling, the baffle plate 31 may be removed.

The tubular support arms 37 house the electric leads 40 which run from the terminals 81 in the socket assemblies to the T fitting 41 where they are connected to a power cable 58. The tubular steel support arms 37 (hereinafter called yokes) are curved to U shape. As best seen in FIG. 3, the ends 38 of the yokes 37 which attach to the lamp holder 25 have an internal diameter just large enough to slide over the outwardly extending portions of the socket sleeves 18. The opposite ends of the yokes 37 have an external diameter as at 39 which slide into a collar portion 42 at each end of the T fitting 41. Each collar 42 is formed with an internal shoulder 43 which prevents its yoke 37 from sliding into the hollow body of the T fitting 41 and the collars have set screws 44 by which the yoke end 39 can be secured against both longitudinal and pivotal movement.

With the yoke outer ends 38 slid over the socket sleeves 18 and the yoke inner ends 39 secured within the collars 42, substantially as shown in FIG. 3, the lamp holder 25 can pivot about the lamp axis. This permits the lamp holder to be tilted throughout a full 360°, permitting the light from the tube 10 to be directed as may be needed for any specific job application. Two such positions about 90° apart are illustrated in FIGS. 1 and 2.

By loosening the set screws 44 and sliding the yoke ends 39 inwardly toward the collar shoulders 43, the outer yoke ends 38 are brought into frictional engage-

ment with the end walls 28 of the lamp holder 25. Since the yokes and housing end walls 28 are somewhat springy, there is a resiliency in the engagement which permits the lamp holder 25 to be purposely rotated, but the friction is sufficient to prevent inadvertent movement. The set screws 44 are tightened with the yokes in this position. Thus my lamp fixture has a very simple adjustment means for directing the light from the tube 10 in any angular direction and for holding the fixture in the set position.

By backing off the set screws 44, the yoke ends 39 are free to rotate in the collars 42. This rotation permits the lamp holder 25, which is supported by the yokes 37, to swivel in an arc that approaches 360° around the axis of the collars 42 of the T fitting 41. This swiveling serves important purposes.

As was suggested above, since the lamp holder 25 can tilt in any direction and the conduit 47 can run from the T fitting in any direction, the air heated by the lamp 10 and passing through the vent 29 might be directed to flow directly over the T fitting 41. This air is so hot that it can injure the electrical wiring and components in the T fitting. To prevent this situation, the swiveling action can be used to offset the lamp holder 25 from the T fitting 41, thus allowing the hot air to flow away from the T fitting.

An example of a preferred yoke arrangement for directing the light from the lamp 10 horizontally toward the viewer is shown in FIG. 2. By swiveling the lamp holder 25 into this position, the hot air will flow upward in front of, rather than over, the T fitting 41. If, however, the conduit 47 of FIG. 2 is positioned horizontally, by rotating the entire assembly as shown 90° counterclockwise, the holder will be directly beneath the T fitting. The yokes should, therefore, be swung outwardly to lie in an approximately horizontal plane so as to put the lamp holder on about the same horizontal level as the T fitting. FIG. 1 shows an advised safe position for directing the light downward when the conduit 47 extends vertically.

Another purpose in providing the swiveling means is to permit greater adaptability for the lighting fixture. In reference to FIG. 1, by slightly swiveling the yokes 37, the lamp holder 25 can be shifted vertically several inches before it will approach the undesirable position beneath the T fitting as above discussed. By swiveling the yokes counterclockwise about 180°, the lamp holder can be moved several inches horizontally. Such vertical and horizontal displacement has the advantage of bringing the light source closer to or farther from the area to be illuminated. It also can be useful during installation if the mounting environment is such that a less flexible lighting fixture could not be mounted or could be mounted only with difficulty.

My lighting fixture has yet another flexible feature making it more usefully adaptable. A collar 49 (as seen in FIG. 2) rises vertically as a portion of the T fitting 41 and embraces the end of a wiring conduit 47 to which it is secured by a set screw 48. By loosening the set screw 48, the T fitting, the yokes, and the lamp holder can pivot as a unit a complete 360° around the fixed conduit 47 in a plane normal to the axis of the conduit end.

The conduit 47 encloses and protects the power lines 58 which enter the T fitting through the collar 49. As shown in FIG. 3, one power lead is connected directly to one socket pin 17, while the other lead is connected to the other socket pin by way of a fuse holder 36. A cover plate 45 for the access opening in the T fitting is secured by screws 46 and can be removed for wiring and for fuse replacement. The fuse is advised, since otherwise there is danger that the tube envelope may be ruptured if the filament breaks and an arc develops. A 1 ampere fuse is recommended for the smaller 500 watt quartz lamp 10 and a 20 ampere fuse with the larger 1500 watt lamp 20. Both the fuse holder 36 and the tubula-

fuse (not shown) are standard items of manufacture, and they and the wiring are sensitive to high temperatures. They are, however, protected sufficiently by the enclosing T fitting and yokes 37 when these elements are offset as described above with respect to the lamp holder.

To be able to tilt the lamp holder 25 through a considerable angular displacement is a distinct advantage for directing the light from the lamp 10 as desired. However, a disadvantage can develop if, by permitting the rotation to continue in one direction for more than one revolution, the wire 40 is twisted so much that its solder connection with terminal 71 is broken or the insulation damaged. To prevent this unlimited rotation, the reflector 51 has been adapted so that in all positions that my flexible fixture can be made to assume the lamp holder 25 can approach, but not exceed, 360° of revolution around the yoke ends 39. This checking feature is obtained by making sides 55 and 57 of the reflector 51 long enough so that they strike the T fitting 41 if the lamp holder is rotated much beyond its normal range of movement.

The reflector 51 provides additional light controlling and reflecting surfaces. It is generally rectangular and is fabricated from a sheet of polished aluminum. Its longitudinal sides 57 are concave on the inside, and the vertical ends 55 are parallel. Screws 54 are secured through the lower portion of the longitudinal sides 57, as seen in FIG. 4, by spring metal lock nuts 53, and these screws fit into slots 35 in the longitudinal sides 37 of the lamp holder 25. As seen in FIGS. 3 and 4, the sides 57 of the reflector 51 fit inside the sides 27 of the lamp holder 25, and the ends of the reflector 51 fit on the outside of the ends 28 of the lamp holder 25. When the reflector 51 is mounted in this manner, it can easily be secured by finger tightening knurled nuts 52 over the screws 54.

On the interior face of the vertical end wall 55 of the reflector 51 is affixed a concave reflective member 59, as shown in FIG. 5. As oriented in this view, a horizontal portion 60 at the reflective member's lower end abuts the end wall 55 and forms a brace holding the lower end of the reflective member 59 away from the vertical end wall 55 and maintains the reflective member's curved shape. A notched segment 67 of the side wall 57 and an offset portion 66 at the lower edge of the end wall 55 of the reflector 51 provide a unique seating area for the easy and accurate positioning of the reflector 51 onto the lamp holder 25. The reflector 51 and the lamp holder 25 are especially devised for quick and easy mounting as above described, with the intention that other reflectors (not a part of the present invention so far as their individual design is concerned) with distinct focusing qualities for special application can be interchanged without mechanical difficulty. This eliminates the expense of manufacturing, stocking, and keeping records on several models of lamp holders which differ only in the shape of their reflective portions. The reflector 51 may be fabricated by conventional cutting, braking, and spot welding techniques.

The embodiment of the present invention shown in FIG. 2 is structurally similar to that of FIG. 1 and incorporates all the novel features above described, which, in general, are the flexibility obtained by tilting, swiveling, and rotating the various portions in relation to one another, the means for circulating the cooling air heated by the lamp away from the electrical contacts and components, and the ready removability and interchangeability of reflectors. This embodiment uses a quartz lamp 20 which is ten inches long rather than the 4½" lamp 10 of FIG. 1. Therefore, the lamp holder 26, yokes 24, and reflector 61 are correspondingly longer than the similar elements of the smaller embodiment of FIG. 1.

A significant difference between the reflectors 51 and 61 is the placement of reflecting partitions 65 in the

longer reflector. These partitions are seen mounted in FIG. 2, one being shown as a separate unit in FIG. 7. The partitions 65 break the long reflector 61 into small reflecting cells similar to the reflector 51 and thus prevent extremely oblique light rays from one end of the tube from passing out of the opposite end of the reflector in an uncontrolled manner. The number of partitions in any one reflector may depend upon the lighting application.

The reflecting partitions 65 are fabricated from two pieces of highly reflective sheet aluminum and are formed in a triangular shape with concave sides 74, giving them the appearance of two of the reflecting members 59 held in back-to-back relation. The base of the triangular partition is oriented close to the illuminating tube 20 and comprises two horizontal wings 68. Each wing 68 has corners 73 of its leading edge oppositely bent to prevent the wing portions from sliding over each other. A crimp 72 joins the two curved sides 74 and forms the apex of the partition and produces a spring pressure on the wings 68 keeping them in butting relation. Small tabs 64 are formed at both ends of one of the concave sides 74, close to the apex. These tabs are inserted into slots in the side walls 63 of the reflector 61 and bent over to secure the partition solidly. The reflector 61 is detached from the lamp holder 26 in the manner previously described in the smaller embodiment. This provides easy access to the lamp 20 and its mountings for maintenance purposes.

From the foregoing it will be appreciated that the objects which I claim for the present invention are attained by the disclosed structure.

While the two embodiments of the adjustable lighting fixture constituting this invention have been shown and described, it will be appreciated that various modifications may be made without departing from the underlying principles and scope of my invention. I therefore desire by the following claims to include all such variations and modifications by which substantially the results of my invention may be obtained through the use of substantially the same or equivalent means.

What I claim as new and useful and desire to secure by Letters Patent is:

1. A fixture for mounting a long, thin, high temperature, illuminating lamp of extremely high output in relation to its surface area, comprising: means providing a lamp housing having walls which enclose the lamp on the sides, ends, and top when the lamp is oriented with its axis horizontal and is projecting light downwardly, the top of said housing having a ventilating opening therethrough, a removable baffle plate overlying said opening and spaced from said housing, a pair of lamp holding members secured through the ends of said housing, said members including spring loaded elements for supporting a lamp in operating position in said housing and for providing electrical connections thereto, said lamp holding members having cylindrical extensions projecting outwardly from the ends of said housing for enclosing the major portion of said elements, a pair of bracket tubes for supporting said housing, one end of each of said tubes forming a slip fit with the exterior surface of one each of said cylindrical extensions to provide a pivotal connection between said housing and said tubes, a hollow fitting for supporting said tubes at their opposite ends, said fitting having aligned sockets to receive said opposite tube ends to provide a pivotal connection between said opposite ends and said fitting, clamping means for retaining said opposite tube ends in a selected fixed position in said sockets, said one ends of said tubes applying an endwise pressure against the ends of said housing for restraining said housing against inadvertent movement, said fitting having a socket adapted pivotally to receive the end of an electrical conduit, means for locking said fitting in a fixed selected position on said conduit end, a fuse holder located in said fitting, electrical wiring, including said fuse holder in series, extending from said fitting to

said lamp supporting elements by way of the passages through said tubes, a separate light control reflector providing an extension for the side and end walls of said housing, means for removably attaching said reflector to said housing, and means limiting rotation of said housing relative to said tube ends to less than 360°.

2. A fixture for mounting a long, thin, high temperature, illuminating lamp of extremely high output in relation to its surface area, comprising: means providing a lamp housing having walls which enclose the lamp on the sides, ends, and top when the lamp is oriented with its axis horizontal and is projecting light downwardly, the top of said housing having a ventilating opening there-through, a removable baffle plate overlying said opening and spaced from said housing, a pair of lamp holding members secured through the ends of said housing, said members including spring loaded elements for supporting a lamp in operating position in said housing and for providing electrical connections thereto, said lamp holding members having cylindrical extensions projecting outwardly from the ends of said housing for enclosing the major portion of said elements, a pair of U-shaped tubes for supporting said housing, one end of each of said tubes forming a slip fit with the exterior surface of one each of said cylindrical extensions to provide a pivotal connection between said housing and said tubes, a hollow fitting for supporting said tubes at their opposite ends, said fitting having aligned sockets to receive said opposite tube ends to provide a pivotal connection between said opposite ends and said fitting, clamping means for retaining said opposite tube ends in a selected fixed position in said sockets, said one ends of said tubes applying an endwise pressure against the ends of said housing for restraining said housing against inadvertent movement, said fitting having a socket adapted pivotally to receive the end of an electrical conduit, means for locking said fitting in a fixed selected position on said conduit end, a fuse holder located in said fitting, electrical wiring, including said fuse holder in series, extending from said fitting to said lamp supporting elements by way of the passages through said tubes, a separate light control reflector providing an extension for the side and end walls of said housing, and means for removably attaching said reflector to said housing.

3. A fixture for mounting a long, thin, high temperature, illuminating lamp of extremely high output in relation to its surface area, comprising: means providing a lamp housing having walls which enclose the lamp on the sides, ends, and top when the lamp is oriented with its axis horizontal and is projecting light downwardly, the top of said housing having a ventilating opening there-through, a removable baffle plate overlying said opening and spaced from said housing, a pair of lamp holding members secured through the ends of said housing, said members including spring loaded elements for supporting a lamp in operating position in said housing and for providing electrical connections thereto, said lamp holding members having cylindrical extensions projecting outwardly from the ends of said housing for enclosing the major portion of said elements, a pair of bracket tubes for supporting said housing, one end of each of said tubes forming a slip fit with the exterior surface of one each of said cylindrical extensions to provide a pivotal connection between said housing and said tubes, means securing said housing to said tubes to prevent relative pivotal movement therebetween, a hollow fitting for supporting said tubes at their opposite ends, said fitting having means forming a pivotal connection between said opposite ends and said fitting, clamping means for retaining said opposite tube ends in a selected fixed position relative to said fitting, said fitting having a socket adapted pivotally to receive the end of an electrical conduit, means for locking said fitting in a fixed selected position on said conduit end, electrical wiring extending from said fitting to said lamp supporting elements by way of the passages through said tubes, a separate light control

reflector providing an extension for the side and end walls of said housing, and means for removably attaching said reflector to said housing.

4. A fixture for mounting a long, thin, high temperature, illuminating lamp of extremely high output in relation to its surface area, comprising: means providing a lamp housing having walls which enclose the lamp on the sides, ends, and top when the lamp is oriented with its axis horizontal and is projecting light downwardly, the top of said housing having a ventilating opening there-through, a removable baffle plate overlying said opening and spaced from said housing, a pair of lamp holding members secured through the ends of said housing, said members including spring loaded elements for supporting a lamp in operating position in said housing and for providing electrical connections thereto, said lamp holding members having cylindrical extensions projecting outwardly from the ends of said housing for enclosing the major portion of said elements, a pair of bracket tubes for supporting said housing, one end of each of said tubes forming a slip fit with the exterior surface of one each of said cylindrical extensions to provide a pivotal connection between said housing and said tubes, means securing said housing to said tubes to prevent relative pivotal movement therebetween, a hollow fitting for supporting said tubes at their opposite ends, said fitting having means forming a pivotal connection between said opposite ends and said fitting, clamping means for retaining said opposite tube ends in a selected fixed position relative to said fitting, said fitting having a socket adapted pivotally to receive the end of an electrical conduit, means for locking said fitting in a fixed selected position on said conduit end, and electrical wiring extending from said fitting to said lamp supporting elements by way of the passages through said tubes.

5. A fixture for mounting a long, thin, high temperature, illuminating lamp of extremely high output in relation to its surface area, comprising: means providing a lamp housing having walls which enclose the lamp on the sides, ends, and top when the lamp is oriented with its axis horizontal and is projecting light downwardly, the top of said housing having a ventilating opening there-through, a pair of lamp holding members secured through the ends of said housing, said members including spring loaded elements for supporting a lamp in operating position in said housing and for providing electrical connections thereto, said lamp holding members having extensions projecting outwardly from the ends of said housing for enclosing the major portion of said elements, a pair of bracket tubes for supporting said housing, one end of each of said tubes forming a slip fit with the exterior surface of one each of said extensions to provide a pivotal connection between said housing and said tubes, means securing said housing to said tubes to prevent relative pivotal movement therebetween, a hollow fitting for supporting said tubes at their opposite ends, said fitting having means forming a pivotal connection between said opposite ends and said fitting, means for retaining said opposite tube ends in a selected fixed position relative to said fitting, said fitting having a member adapted for connection to the end of an electrical conduit, means for locking said fitting in a fixed selected position on said conduit end, and electrical wiring extending from said fitting to said lamp supporting elements by way of the passages through said tubes.

6. A fixture for mounting a long, thin, high temperature, illuminating lamp of extremely high output in relation to its surface area comprising: means providing a lamp housing having walls which enclose the lamp on the sides, ends, and top when the lamp is oriented with its axis horizontal and is projecting light downwardly, a pair of opposed lamp holding members secured in the ends of said housing, said holding members including at least one spring loaded element for supporting a lamp in operating position in said housing and for providing elec-

trical connections thereto, a pair of hollow bracket members extending upwardly from the ends of said housing, a hollow support fitting provided at its ends for telescoping engagement with the upward end portions of both said hollow bracket members for securing said bracket members and housing pivotally with respect to said hollow fitting, adjustable clamping means for retaining said bracket members in fixed relation to said hollow support fitting after said bracket members have been pivoted as desired with respect to said hollow fitting, said hollow fitting having a centrally located socket adapted pivotally to receive the end of an electrical conduit, means for

clamping said fitting to said conduit after pivoting adjustment thereof, and electrical wiring extending from said conduit to each of said lamp holding members by way of the passages in said hollow fitting and hollow brackets.

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