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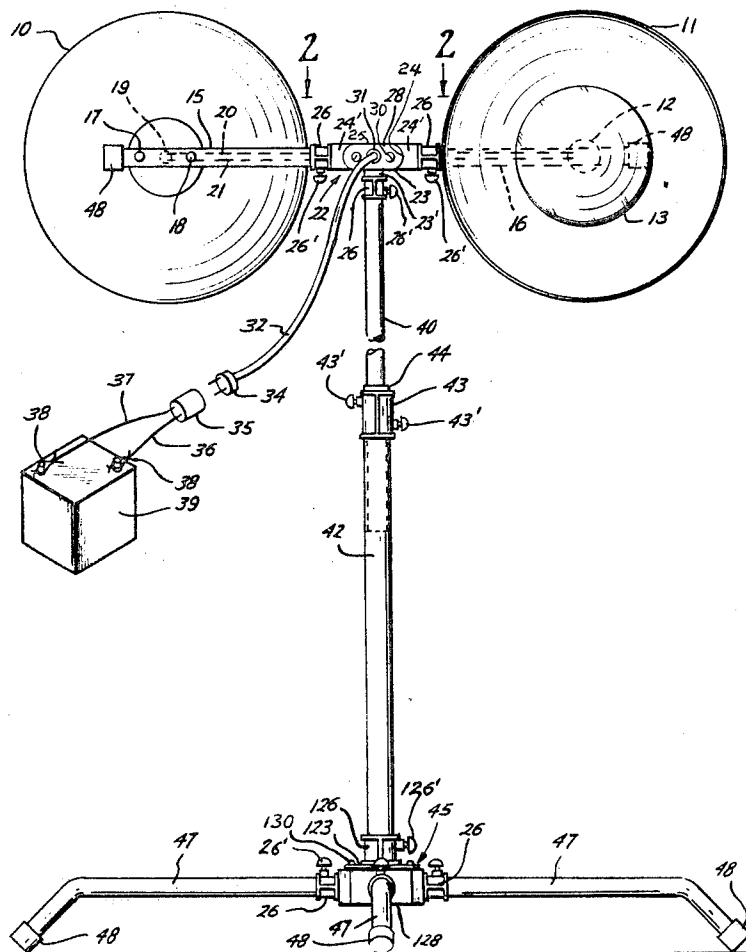
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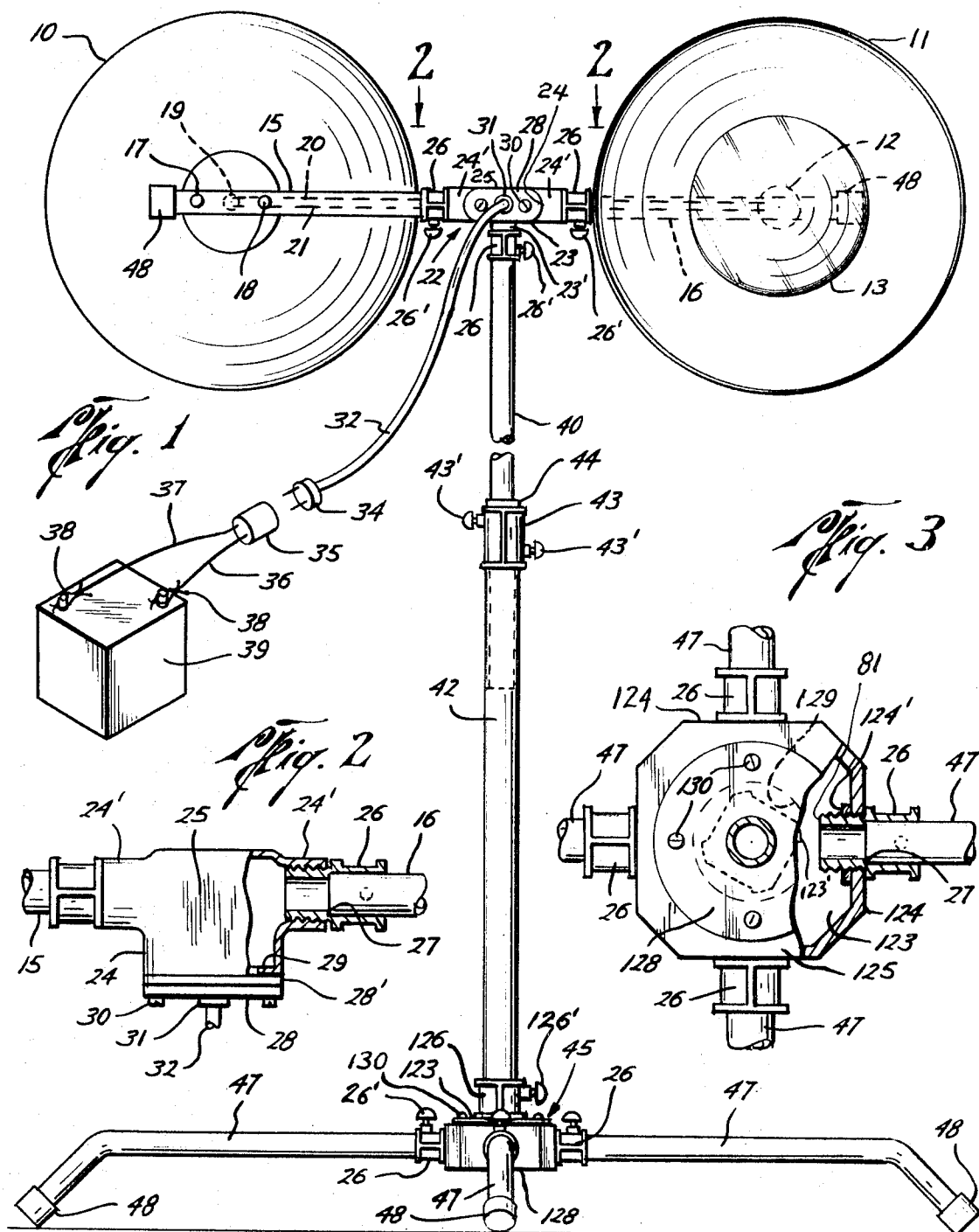
[54] **ELECTRIC LIGHT HOLDER**
 2 Claims, 6 Drawing Figs.

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 BS; 248/226.1, 157, 43, 413; 285/128, 129, 158

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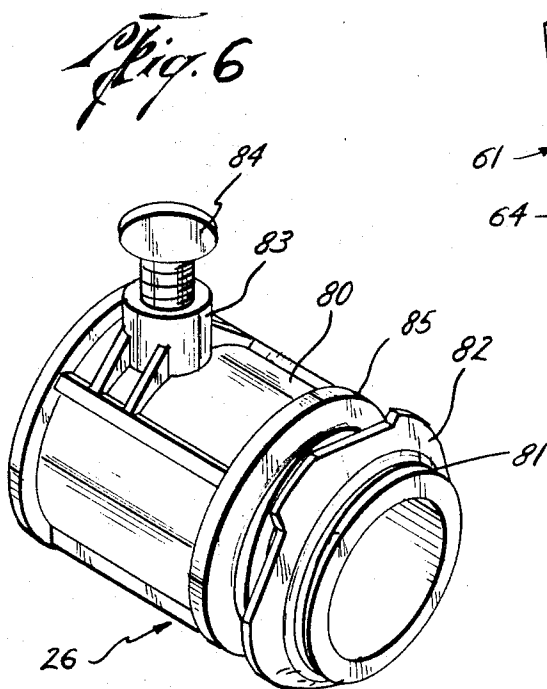
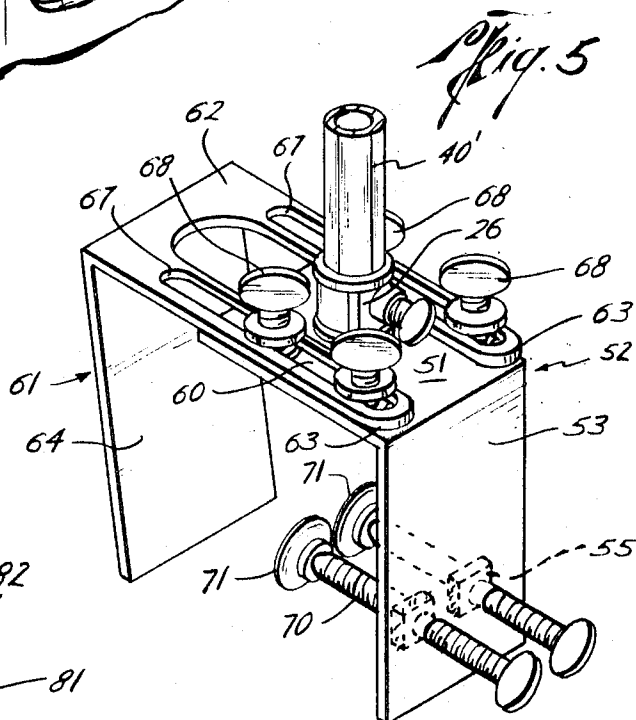
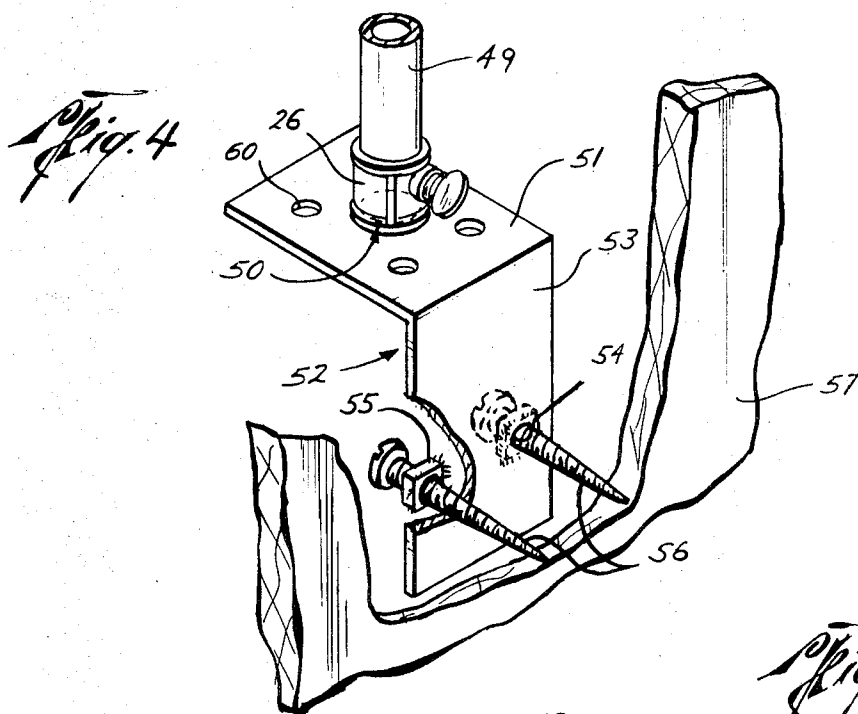
ABSTRACT: Portable electric light holder having a tubular (telescopic) standard connected at its upper end to bottom plate of box having plates forming bottom and sides thereof, the latter being connected to tubular arms carrying reflector-lamp socket units. A support including a plate is connected to lower end of standard. The support in one form comprising second box having plates forming top and side thereof, the latter being connected to tubular legs radiating from the standard. Plates have apertures where tubular members are connected thereto by means of tubular connectors, each telescoped at one end over one of tubular members and secured thereto by set screw and having the other end connected to plate by threaded means. Electric conductors extend from sockets through arms into first box and thence to power source.





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ELECTRIC LIGHT HOLDER

BACKGROUND OF INVENTION

1. Field of Invention

The invention relates to portable lamp holders adapted, for example, to be powered by a storage battery, such as used in autos and boats and by campers.

2. Discussion of the Prior Art
It is known to provide a light holder for lamps powered from a battery, as disclosed in U.S. Pat. No. 2,153,104 to Switzer. A similar structure used for a trouble light is shown in U.S. Pat. No. 3,240,455 to Swezy et al. A light holder for kerosene lights used as a camp light is shown in U.S. Pat. No. 3,333,807 to Locatelli. However, it has not previously been disclosed that such outdoor lights can be made of knock-down fully portable components in an economical manner yet providing a rugged readily assembled and disassembled construction.

SUMMARY OF THE INVENTION

According to the invention there is provided an electric light holder comprising a tubular (telescopic) standard connected at its upper end to the bottom plate of a box having plates forming the bottom and sides thereof, the latter being connected to tubular arms carrying reflector-lamp socket units. A support including a plate is connected to the lower end of the standard. The support optionally comprises a second box having plates forming the top and sides thereof, the latter being connected to tubular legs radiating from the standard. The plates have apertures where the tubular members are connected thereto by means of tubular connectors, each telescoped at one end over the end of one of the tubular members and secured thereto by a setscrew and having its other end connected to the plate by threaded means. Electric conductors extend from the sockets through the arms into the first box and thence to a power source.

The support with radial legs is adapted for resting on a horizontal surface, e.g. the ground outdoors. The plate at the bottom of the standard may alternatively be part of a support adapted to clamp to the side of a fishing boat or be mounted on a wall, e.g. in a camper.

The invention thus provides a light holder adapted with a minimum number of interchangeable parts for supporting lights outdoors in many different situations.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front elevation of an electric light holder embodying the invention adapted for use on the ground outdoors;

FIG. 2 is a top view of the box at the upper end of the structure shown in FIG. 1;

FIG. 3 is a top view of the box at the lower end of the structure shown in FIG. 1;

FIG. 4 is a perspective showing a modification of the structure of FIG. 1 adapted for use on a vertical wall, e.g. of a camper;

FIG. 5 is a perspective showing a further modification of the invention adapted for use in a boat; and

FIG. 6 is a perspective showing one of the connectors employed in the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 1 and 2 the device comprises a pair of reflectors 10, 11, of relatively flat dish-shaped configuration. The back side of reflector 10 is shown; at the front side of reflector 11 there is shown a socket 12 receiving an electric light bulb 13. A similar socket and bulb are provided for reflector 10. The bulbs 13 will be chosen to be appropriate to the voltage of the power supply to which the device is to be connected.

To the back sides of the reflectors are secured arms formed by pipes 15, 16, held to the reflectors by screws 17, 18, as shown at the back of reflector 10. A hole 19 in each pipe 15, 16, admits a pair of wires 20, 21, from the sockets 12.

Referring now also to FIG. 2, the ends of pipes 15, 16, are connected to a hollow metal box 22 having a bottom plate 23 and side plates 24 and a top plate 25. The box has openings at its bottom and opposite sides with integral internally threaded necks 23', 24' therearound to receive the threaded ends of tubular connectors 26. The connectors 26 are shown in detail in FIGS. 2 and 6. The connectors are slipped over the ends of the pipes and fastened thereto by tightening the setscrews 26'. As shown in FIG. 2, each connector has an internal annular shoulder 27 against which the pipe end abuts to eliminate wobble. The necks 24' provide one form of threaded means for making screw connection with the threaded ends of the connectors to connect the tubular connectors to the box with the box apertures in register with the tubular connectors.

The cover plate 28, held to the box by screws 30, closes the front opening 29 that provides access to the inside of the box during assembly. A gasket 28' provides a seal to exclude water. A hole in the cover plate sealed by grommet 31 allows entrance of two conductor electric cable 32. The cable is connected to the wires 20, 21, from the light sockets, preferably with the sockets in parallel. The cable preferably terminates in a connector plug 34 adapted to fit into connector socket 35. The latter is provided with two wires 36, 37, having clamp means 38 at their ends for making connection with 12 volt storage battery 39. The battery may be an automobile battery, a boat battery, or any available storage battery. Alternatively the plug 34 can be connected to a standard 110 volt home electric power supply if available. If such alternative is not desired, cable 32 can be connected directly to clamps 38, omitting plug 34 and socket 35.

As shown in FIG. 1 a vertical pipe 40 e.g. 24 inches long, is connected to the bottom plate 23 of box 22 by another tubular connector 26 screwed at one end into a threaded neck 23' around an aperture in the bottom plate. The other end of the connector 26 is telescoped over pipe 40 as far as the internal shoulder 27 will permit and secured thereto by the setscrew 26'.

It is apparent that provision is made for directing the two reflector-socket units formed by reflectors 11, 12 and sockets 13 at any desired altitude and azimuth by releasing the setscrews on the connectors 26 and rotating the pipes and reengaging the setscrews.

Pipe 40 forms the upper part of a telescopic standard including a lower pipe 42 which may, for example, also be 24 inches long. The lower end of pipe 40 is received telescopically in the larger diameter pipe 42 and adjustably secured as to height by means of a tubular connector 43 adjustably fastened to pipe 40 and also fastened at the upper end of pipe 42. The connector 43 also prevents relative rotation of pipes 40 and 42 so that the reflector-socket units will not swing around in the wind. By loosening connector 43, the azimuth of the units can be changed. The lower end of connector 43 is similar to the lower end of connector 26 but the connector is larger in diameter to accommodate the larger diameter pipe 42. The upper end of connector 43 duplicates the lower end thereof in place of the threaded end portion of connector 26, connector 43 thus having two setscrews 43'. A bushing or sleeve 44 is provided inside the upper end of connector 43 to fill the annulus between pipe 40 and connector 43, thereby to prevent wobble and canting of pipe 40. The bushing has an aperture through which extends the upper setscrew 43' to engage pipe 40. If desired, connector 43 may have an internal downwardly facing shoulder like shoulder 27 to seat on the upper end of pipe 42, and bushing 44 could be omitted.

The lower end of pipe 42 is connected to the top plate of an octagonal box 45. Referring now also to FIG. 3, box 45 has a bottom plate 123, flat side plates 124, top plate 125, and a flat cover plate 128 over an access opening 129 in the top plate, held thereto by screws 130. The pipe 42 is secured to the top plate 123 by a connector 126 slipped over pipe 42 and received in an aperture in the top plate. Connector 126 is the same as connector 26 except larger in diameter to fit onto pipe 42. However instead of being screwed into a threaded neck

around the aperture in plate 123, it is passed through the aperture and secured by a nut 123'.

Four pipes 47, e.g. 24 inches long, form legs for the light holder. They are connected to box 45 by connectors 26 the same as those on arms 15 and 16 and the upper end of pipe 40. Connectors 26 are slipped over the inner ends of the legs. The threaded ends of the connectors are received in four apertures in the plate 124 forming the sides of the box. The threaded ends of the connectors are secured by nuts 124' like nut 123', which, analogous to threaded necks 24', provide another form of threaded means for making screw connection with the threaded ends of the connectors to connect the tubular connectors to the box with the box apertures in register with the tubular connectors.

The apertures in the sides of box 45 are spaced apart 90°. The outer ends of the four pipes 47 are bent downwardly so that the box 45 is off the ground when the light holder is resting on the ground. In order to keep out the dirt and water, thimbles 48, preferably of elastomeric material such as neoprene, are slipped over the cover walls of legs 47. Similar thimbles 48 may be placed on the ends of arms 15, 16.

By loosening the connector 126 on pipe 42 the pipe can be turned relative to the legs to adjust the azimuthal position of the standard. By loosening the connectors 26 on the pipes 47, the latter can be turned to conform them to the contour of the floor or ground on which the legs rest, or to adjust the angle of the standard relative thereto.

It will be apparent that a box similar to box 45 could be used in place of box 22, and vice versa, the appropriate threaded means for making connection with the threaded ends of the tubular connectors being used in each case. However due to the weight of the reflector-socket units at the ends of arms 15, 16, the more rigid and stronger connection provided by box 22 with its threaded necks 24' is preferred for the upper box.

Referring to FIG. 4, pipe 42, box 45, and legs 47 can be omitted and a shorter (e.g. 6 inches long) pipe 49 substituted for the pipe 40. Pipe 49 is secured by a connector 26 in a hole 50 in the horizontal portion 51 of a wall bracket 52. The vertical portion 53 of the bracket has two holes 54 therein to which are welded nuts 55. The nuts are primarily useful in connection with another embodiment of the invention but in this embodiment provide reinforcement around holes 54 through which pass screws 56 received in wall 57.

Referring also to FIG. 5, the horizontal part of bracket 52 may have threaded holes 60 therein whereby it may be secured to a clamp 61 adapted to cooperate with bracket 52 to fasten the light holder to the side of a boat. The clamp 61 includes a horizontal portion 62 having tongues 63 and a lower portion 64 bent at an exterior angle of 105° to the plane of horizontal portion 62. Tongues 63 have slots 67 aligned with holes 60. Setscrews 68 passing through slots 67 into holes 60 hold the tongues in desired position on horizontal portion 51 of the bracket, thereby to set the spacing of vertical portions 64 and 53. Thumb screws 70 threaded through nuts 53 have swivel pads 71 at their ends to engage tightly the inside of the side of the boat.

FIG. 6 is a detail of one of the connectors 26 (or 126) which includes a tubular portion 80 having a threaded end 81 on which a nut 82 is screwed, and having an integral boss 83 at the other end through which passes setscrew 84. Preferably the connector is ribbed over a portion of its length to facilitate gripping thereof. Annular flange 85 forms a shoulder on the exterior of the connector adjacent the threaded end 81. The plates, other than those in box 22, receiving the connectors at the ends of the several pipes, are clamped between such shoulder and said nuts. In the case of box 22, the taper threaded ends of the connectors are screwed into the straight threaded necks 24' to make up tight prior to engagement of flange 85 with the necks. Although as shown in FIG. 2 the pipes abut internal shoulder 27, if desired the internal shoulder may be omitted so that the pipes may extend clear through the connectors and the apertures in the plates.

From the foregoing description it will be seen that the light holder comprises for the most part a plurality of tubular members, namely the standard and the arms and the legs, and a plurality of flat and curved plates to which the tubular members are anchored by the connectors. The result is economy in manufacture and simplicity in assembly, operation, and disassembly. The apparatus is versatile in that it is easy to change the support to any of the three forms shown in FIGS. 1, 4 and 5 with a minimum of effort and using a minimum number of alternative parts.

The tubular members, plates, connectors, and reflectors are preferably made of metal. However plastic may be used for the tubular members if great strength is not required.

While a preferred embodiment of the invention has been shown and described, many modifications thereof can be made by one skilled in the art without departing from the spirit of the invention.

I claim:

1. Light holder comprising:

- a tubular standard member having an upper end and a lower end,
- a plurality of tubular arm members each having an inner end and an outer end,
- a reflector-socket unit secured at each of said outer ends,
- a plurality of tubular connectors each having one end telescoped over one of said upper and lower and inner ends of said tubular members and secured thereto by a setscrew, the other end of each connector being threaded,
- a box having plates forming the bottom, and sides thereof with apertures in said sides in register with the threaded ends of the connectors on said arms and an aperture in said bottom in register with the threaded end of the connector at the upper end of the standard,
- a support including a first plate having an aperture in register with the threaded end of the connector at the lower end of the standard, and a second plate integral with said first plate, said first and second plates being disposed at an angle to each other forming a bracket, the second plate having apertures therethrough adapted to receive screws for mounting the second plate vertically on a wall,
- said support further includes a clamp formed of a first plate and a second plate disposed at an angle to each other and integrally connected, said first plate of the clamp comprising two slotted tongues secured to said first plate of the bracket by a plurality of setscrews passing through said slots into said first plate of the bracket, the spacing of said tongues exceeding the diameter of the connector joining the lower end of the standard to the support.

2. Light holder comprising:

- a tubular standard member having an upper end and a lower end,
- a plurality of tubular arm members each having an inner end and an outer end,
- a reflector-socket unit secured at each of said outer ends,
- a plurality of tubular connectors each having one end telescoped over one of said upper and lower and inner ends of said tubular members and secured thereto by a setscrew, the other end of each connector being threaded,
- a box having plates forming the bottom, and sides thereof with apertures in said sides in register with the threaded ends of the connectors on said arms and an aperture in said bottom in register with the threaded end of the connector at the upper end of the standard,
- a support including a first plate having an aperture in register with the threaded end of the connector at the lower end of the standard, and a second plate integral with said first plate, said first and second plates being disposed at an angle to each other forming a bracket, the second plate having apertures therethrough adapted to receive screws for mounting the second plate vertically on a wall,

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said second plate of said bracket is provided with threaded nuts welded adjacent said apertures therein, and clamping screws adjustly positioned in said nuts, said clamping

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screws having pads mounted on the ends thereof facing said clamp, said pads being mounted on said screws for universal action.

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