

PATENT SPECIFICATION

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(54) LIGHT FITTING

(71) We, HILLE INTERNATIONAL LIMITED, a British Company of 132, St. Albans Road, Watford, Hertfordshire, WD2 4AG do hereby declare the invention, for which we pray that a patent may be granted to us and the method by which it is to be performed, to be particularly described in and by the following statement:-

This invention relates to light fittings, and in particular to light fittings which are intended to provide localised lighting over a work surface or a table top.

According to the present invention there is provided a light fitting comprising a substantially L-shaped support arm having pivotally mounted at one end of the arm an elongate member of channel section for carrying an electric light tube, the member being mounted on the support arm for horizontal pivotal movement and, optionally, a small amount of vertical pivotal movement, the other end of the L-shaped support arm being adapted for pivotal attachment to a support surface.

Preferably, the L-shaped arm is attached to the elongate member near one end of said member, and the attachment is conveniently made by means of a ball and socket joint to provide the required degree of vertical movement which is preferably no more than 15° from the horizontal. In an alternative arrangement, the said one end of the L-shaped arm carries a boss having a threaded projection, the projection extending through a hole in the elongate member and being attached to the member by means of a nut which bears against a compression spring located between the nut and the member.

The L-shaped arm may be fixed to a support surface, normally a table top, by means of a conventional clamp or, in a preferred arrangement, the end of the arm may be pivotally received in a sleeve, which sleeve is fixed into a hole in the support surface.

The invention is now described, by way of example, with reference to the accompanying drawings, wherein:

Figure 1 is a side elevation of a light fitting, partly in section, and

Figure 2 is a side elevation of an alternative embodiment of the light fitting using a ball and socket connecting joint.

Referring to Figure 1 of the drawings, a light fitting comprises a substantially L-shaped arm 1, made of rigid material such as metal or plastics, having an upper limb 7 at one end of which is pivotally mounted an elongate member 3 of generally U-shaped transverse cross section.

The end of the limb 7 is formed with a frusto-concavally shaped boss 30 having an externally threaded cylindrical projection 31 extending downwardly from the base of the boss 30. The projection 31 passes freely through a hole in the wall of member 3 and carries a nylon washer 32 which is held in position against the member 3 by means of a helical compression spring 33. The lower end of the compression spring 33 bears against a nut 34 which is screwed onto the free end of the projection 31. A PTFE washer 35 is located between the base of the boss 30 and the wall of member 3. The arrangement permits the member 3 to pivot freely about the projection 31 in a horizontal plane. The helical spring 33 provides a degree of cushioning against shock movement of the member 3 in a vertical plane should the member 3 be accidentally struck while in use. The member 3 has mountings 9-9 which support a fluorescent light tube 11 in conventional manner. The member 3 also carries a choke 13 for the tube 11 and, attached to the outside of the member 3 adjacent the choke 13 is a push switch 15 for switching the electric supply to the tube 11 on and off.

The lower end of the arm 1 has a cylindrical portion 17 of reduced thickness which

- defines an annular shoulder 40. The portion 17 is received in a sleeve 41 which is a tight fit in a drilled hole 50 in a table top 19, the sleeve 41 having an externally threaded lower end 45. The upper end of the sleeve 41 has an outward annular flange 42 which seats on the upper surface of the table top 19 and limits further downward movement of the sleeve 41 through the drilled hole 50.
- 10 The flange 42 also forms a seating surface for shoulder 40. The sleeve 41 is suitably made of mouldable plastics material and has formed on its outer surface two or more circumferentially spaced axially extending recesses (not shown) which accommodate wedge shape metal inserts 43. When the sleeve 41 is forced fully home into the drilled hole 50, the metal inserts 43 bite into the table top material and prevent the sleeve from rotating in the hole. The sleeve 41 can be firmly secured to the table top 19 by screwing a locking nut 44 onto the threaded end 45 of the sleeve 41.

- 25 This arrangement permits the arm 1 to pivot within the sleeve 41 without any danger of the sleeve 41 pivoting in the drilled hole 50.

- 30 The length of the member 3 is such that it stops against the L-shaped arm 1 when moved to a position where it is parallel to the upper limb 7.

- Referring now to Figure 2 of the drawings, where like parts are given the same reference numerals as in Figure 1, the member 3 is mounted over upper limb 7 by means of a ball and socket joint 23, which permits a degree of vertical movement, preferably up to 15° as well as unrestricted horizontal movement.

- 40 It will be appreciated that by enclosing the light tube 11 in the member 3, the area over which light is spread is relatively restricted. Hence, a person can use the light fitting of the invention while working at a table in, for example an open plan office,

without stray light and glare being produced which might distract other workers in the office.

WHAT WE CLAIM IS:-

1. A light fitting comprising a substantially L-shaped support arm having pivotally mounted at one end of the arm an elongate member of channel section for carrying an electric light tube, the member being mounted on the support arm for horizontal pivotal movement and, optionally, a small degree of vertical pivotal movement, the other end of the support arm being adapted for pivotal attachment to a support surface.

2. A fitting according to claim 1 wherein the support arm is attached to the elongate member near one end of the said member.

3. A fitting according to claim 1 or 2 wherein the said one end of the arm carries a boss having a threaded projection, the projection extending through a hole in the elongate member and being attached to the member by means of a nut which bears against a compression spring located between the nut and the member.

4. A fitting according to claim 1 or 2 wherein the support arm is attached to the elongate member by means of a ball and socket joint.

5. A fitting according to claim 1, 2 or 4, wherein the degree of vertical movement is no more than 15° from the horizontal.

6. A fitting according to any one of claims 1 to 5 wherein the other end of the support arm is pivotally received in a sleeve, which sleeve is fixed into a hole in the support surface.

7. A light fitting substantially as hereinbefore described with reference to Figure 1 or 2 of the accompanying drawings.

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