Jan. 19, 1943. J. F. LIVERS 2,308,986

FLUORESCENT BED LAMP

Filed Aug. 2, 1940 2 Sheets-Sheet 1

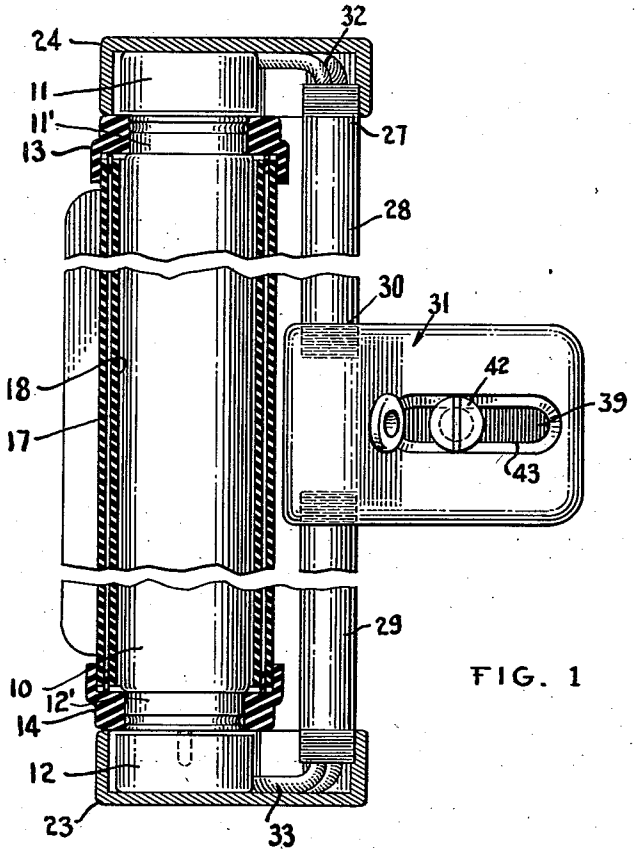


FIG. 1

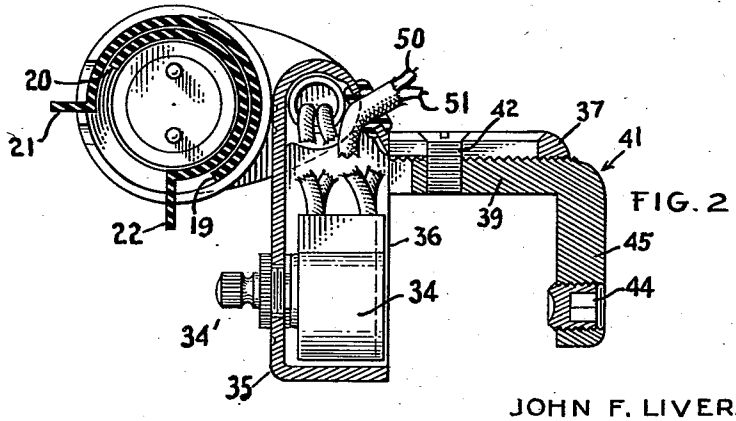


FIG. 2

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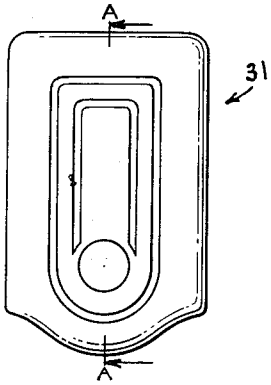


FIG. 4

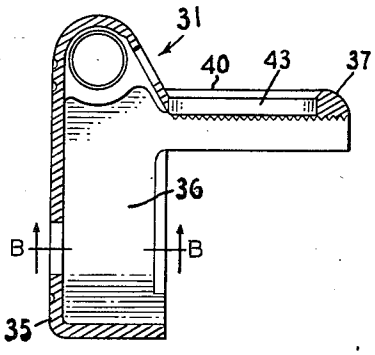


FIG. 3

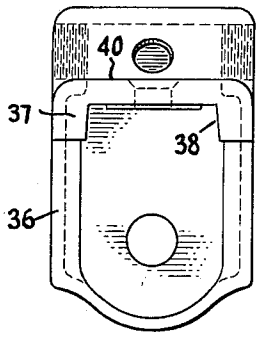


FIG. 5

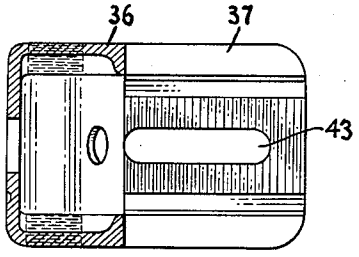


FIG. 6

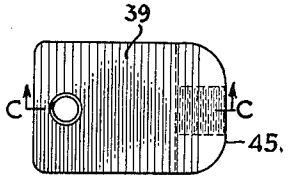


FIG. 7

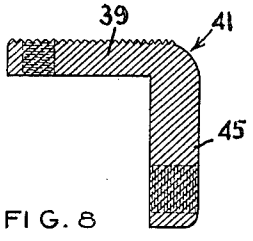


FIG. 8

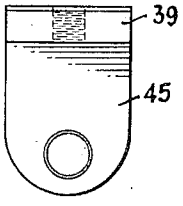


FIG. 9

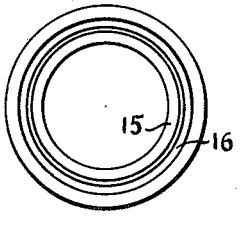


FIG. 14

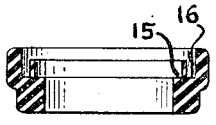


FIG. 15

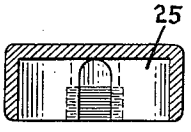


FIG. 12

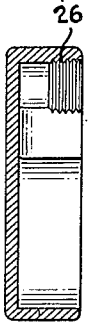


FIG. 11

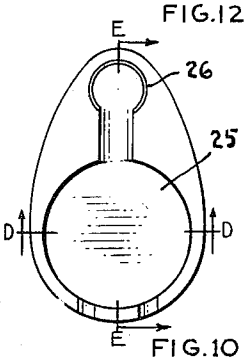


FIG. 10

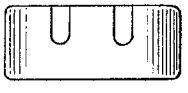


FIG. 13

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Patented Jan. 19, 1943 2,308,986

UNITED STATES PATENT OFFICE

2,308,986

FLUORESCENT BED LAMP

John F. Livers, Decatur, Ill., assignor to Faries Manufacturing Company, Decatur, Ill., a corporation of Illinois

Application August 2, 1940, Serial No. 349,447

7 Claims. (Cl. 240—4)

My invention relates more particularly to that class of lamps designed to be detachably secured to a bed or other piece of furniture. It will be apparent from the hereinafter contained description that its use is not limited to that particular use.

The production of the fluorescent type of light source and its general acceptance by the public has produced a demand for a construction which would make possible the use of such a light source which would be available to supply light to beds, pianos, stoves, pictures, writing desks, etc.

It has, however, on account of the size and proportion of the light source and the accessories, reflectors, etc. required, been found impractical because of such size. Moreover even if size were not objectionable they are so unsightly that the public has been unwilling to accept them to any extent.

The principal object of my invention is to produce a construction for a lamp, of the type referred to, which will be compact, thus overcoming the objection as to size and which will be sufficiently ornamental to meet with the approval of the purchasing public.

A further object is to construct a lamp so that it will be to a great extent self-contained.

A further object is to so construct the lamp that the switch will form a part of the required clamp.

A further object is to construct a lamp which will reduce the size to a minimum, the diameter of the outer shield or sleeve which encloses the light source being not more than one fourth inch greater than that of the source itself, while the total length of the unit is approximately one inch more than the light source.

A further object is to control the volume of light from the source to such an extent it may be totally closed off if desired.

A further object is to direct the light rays in any desired direction.

My means of accomplishing the foregoing objects may be more readily understood by reference to the accompanying drawings which are hereunto annexed and form a part of this specification in which:

Fig. 1 is a top or plan view with the sleeves, supporting ferrules, and end housings, shown in section;

Fig. 2 is a detail view taken in cross-section of the same;

Fig. 3 is a cross-section of the switch housing and clamp bracket on line A—A looking in the directions of the arrows in Fig. 4;

Fig. 4 is an end elevation of the same;

Fig. 5 is an end elevation of same looking at the opposite end from Fig. 4;

Fig. 6 is a section on line B—B in Fig. 3 in the direction indicated by the arrows;

Fig. 7 is a detail plan view of the lower clamping member;

Fig. 8 is a section taken on the line C—C looking in the directions of the arrows in Fig. 7;

Fig. 9 is an end elevation of the same;

Fig. 10 is a front view of one of the end housings;

Fig. 11 is a section on line E—E looking in the directions of the arrows in Fig. 10;

Fig. 12 is a section looking in the directions of the arrows on line D—D in Fig. 10;

Fig. 13 is an end elevation of the housing shown in Fig. 10;

Fig. 14 is a plan view of one of the supporting ferrules; and

Fig. 15 is a cross-section of the same. Similar reference numerals refer to similar parts throughout the entire specification.

As shown in the drawings the lamp comprises a fluorescent tube 10, which is supported by sockets 11 and 12, of standard construction. Mounted upon the base portions 11' and 12' of tube 10, are ferrules 13 and 14. I form annular seats 15 and 16, in these ferrules in which are rotatably mounted the ends of an inner and outer sleeve 17 and 18, respectively. These sleeves may be formed of plastic or other material as desired. The sleeves 17 and 18, are provided with longitudinal slots 19 and 20. Preferably one edge of each slot has a longitudinal flange 21—22, mounted on or secured to it, and extend radially from the lamp. These flanges 21 and 22, preferably extend the length of the slots 19 and 20, but their ends are spaced from the ferrules 13 and 14. It also provides for convenient rotation of the two cylindrical sleeves 17 and 18, so as to direct the light rays through the opening formed by the slots 19 and 20, in the desired direction. The ferrules and sockets are enclosed in right and left housings 23 and 24, which preferably are formed of plastic material and arranged to completely enclose them. As these housings are identical except that they are right and left, I shall only describe one of them.

I form a circular recess 25, in which is mounted the sockets and ferrules. At the rear I form a threaded aperture 26, adapted to receive one end 27 of tubes 28 and 29, which space the housings 23 and 24, the required distance. The other ends 30 of the tubes 28 and 29, are threaded into a

center fitting 31, which forms the clamp employed to secure the lamp in the desired location on the piece of furniture. The tubes 28 and 29, serve as conduits for electric wires 32 and 33, which run to a switch 34. The switch 34, is provided with the usual button 34' to close the contact between the wires 32 and 33 and wires 50 and 51, which lead to a suitable source of electric current supply (not shown). The starter switch 34 is used in lieu of the conventional manual switch and glow type starter and is constructed with two sets of contacts. A partial turn of the switch supplies current momentarily to heat the electrodes or filaments. This action provides the electronic discharge necessary to start the lamp. Continuing the turn of the switch cuts off the initial current to the electrodes and then supplies the high voltage surge starting the arc and normal lamp operation. The switch 34, is enclosed in a housing 35, the side walls 36 of which form a part of the clamp. It is thus clear that I bring together in a compact unit at the switch location 4 leads from the switch and from the sockets and 2 from the line feed, requiring five splices. The top of the housing 35, extends outwardly, forming an extended portion 37, the under surface of which is formed with a rabbet 38. The rabbet is adapted to receive a rib 39, formed on the top of one side of the horizontal portion of an angular member 41, which is fitted thereto and which serves to align the two parts. A set screw 42, is mounted in the side 39, and is slidable in a slot 43, formed in the extension 37. This permits the clamp to be adjusted to fit almost any thickness of the piece of furniture to which the lamp is to be clamped. A set screw 44, is mounted in the vertical portion 45, of the angular member 41 for the purpose of ensuring a definite tight adjustment to the furniture.

It will be clear from the foregoing that my construction is made possible by the fact that the fluorescent light source does not generate any appreciable heat.

Although I have described with some detail specific forms for the various parts of my improvement, they are formulated solely for illustrative purposes and I do not desire to be understood as being limited thereto except as such limitations may appear in the hereinafter appended claims.

Having described my invention what I regard as new and desire to secure by Letters Patent is:

1. In a lamp of the character described having a fluorescent light source and sockets which support said light source, a cylindrical sleeve surrounding said light source and contiguous thereto, a second sleeve surrounding the first named sleeve and contiguous thereto and rotatable thereon, a molded cap or ferrule mounted on each base portion of said light source, there being annular seats in said caps or ferrules, said sleeves being rotatably mounted in said seats, each sleeve having a longitudinal slot extending therethrough, a longitudinal flange formed on one edge of the slot opening in each sleeve, the ends of said flanges being spaced from said caps or ferrules.

2. In a lamp of the character described having a fluorescent light source and sockets which support said light source, housings for the said sockets, said housings having threaded apertures in one side thereto, tubes mounted therein which space said housings and serve as conduits for electric wires, a clamp mounted on the other end of said tubes, adapted to clamp said lamp in position, one wall of said clamp consisting of a housing and a switch in said housing.

3. In a lamp of the character described having a fluorescent light source, and sockets which support said light source, a pair of molded plastic ferrules or caps, mounted on base portions of said light source, an inner and outer sleeve of equal arcuate extension, each having a longitudinal slot extending therethrough rotatably mounted in said ferrules or caps, there being a longitudinal registering slot in said sleeves and means to clamp said lamp in a desired location.

4. In a lamp of the character described having a fluorescent light source, sockets which support said light source, an inner and outer sleeve of equal arcuate extension surrounding said light source and contiguous thereto, said sleeves having registering longitudinal slots extending therethrough, means to rotatably mount said sleeves on base portions of said lamp and means to clamp said lamp in a desired location.

5. In a lamp of the character described having a fluorescent light source, sockets which support said light source, an inner and outer sleeve surrounding said light source and contiguous thereto, said sleeves having registering longitudinal slots extending therethrough, means to rotatably mount said sleeves on base portions of said lamp, means to house said sockets, a center fitting comprising a housing which forms part of a clamp, an electric switch therein, tubes which connect said housing to the center fitting, said tubes serving to space said socket housing in proper position and serving as conduits for electric wires.

6. A clamp for a fluorescent lamp of the type described comprising, a downwardly depending casing, an electric starting and lighting switch together with essential wiring for said fluorescent lamp housed in said depending casing, said casing having a laterally extended portion at its top, an adjustable angular member fitted to said extension, means to lock said adjustment in a predetermined position, means cooperating with said angular member to rigidly support said lamp when in position and means projecting from said casing to support said fluorescent lamp.

7. A clamp for a fluorescent lamp having means projecting therefrom to support said lamp comprising a downwardly depending casing, an electric starting and lighting switch together with essential wiring for said fluorescent lamp housed in said depending casing, said casing having a laterally extended portion at its top there being a slot therein and a rabbet in the underside thereof, adjustable angular member fitted to the rabbet in said extension, means slidably mounted in said slot to lock said angular member in a predetermined position, and means cooperating with said angular member to rigidly support said lamp when in position.

JOHN F. LIVERS.