Aug. 20, 1935. P. J. KAYATT 2,012,170

INCANDESCENT GAS LIGHTING DEVICE

Filed April 22, 1933

Fig. 2.

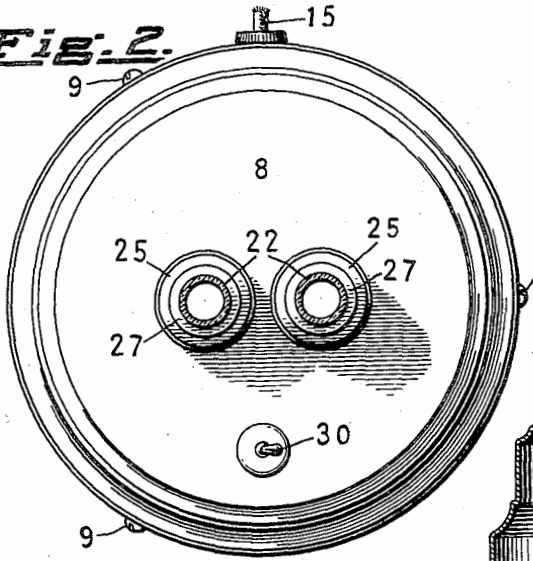


Fig. 3.

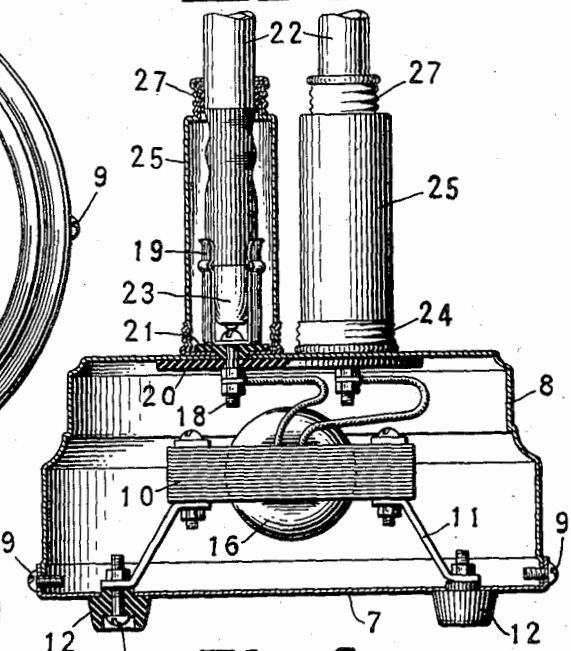


Fig. 1.

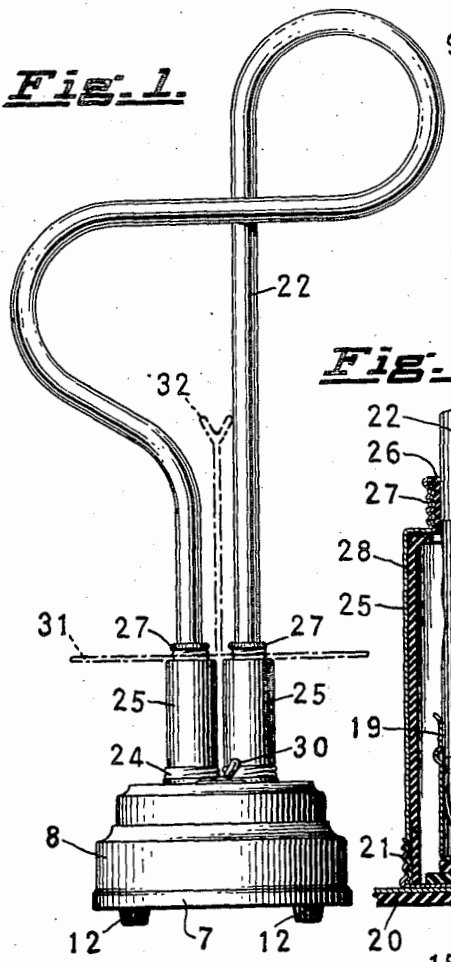


Fig. 4.

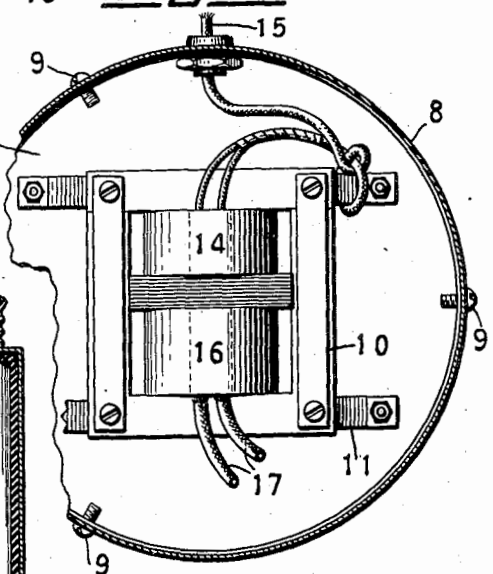
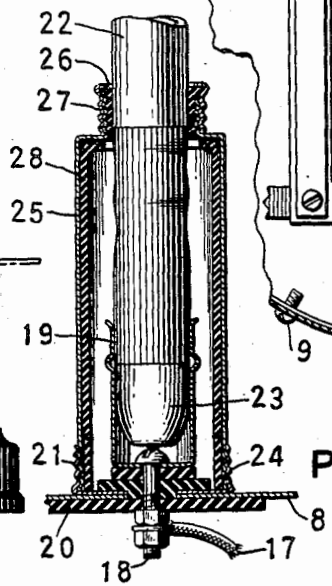


Fig. 5.



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2,012,170

INCANDESCENT GAS LIGHTING DEVICE

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Application April 22, 1933, Serial No. 667,463

7 Claims. (Cl. 240—11.4)

My invention relates particularly to what are sometimes called incandescent gas lighting devices.

The main object is to provide a simple and reliable type of portable lamp adapted to utilize a gas tube lamp. These lamps are formed principally of glass with an elongated chamber containing a suitable gas such as neon, and sometimes containing mercury vapor. Such lamps require high voltage, at least for starting, and it is customary to employ a step-up transformer so that the lamp can be used on an ordinary house lighting system which usually has a voltage of from 100 to 220 volts, although the invention is not limited to any particular voltage or type of transformer.

One object is to provide a construction having a transformer and a housing for enclosing the transformer and supporting the terminals for the tube.

Another object is to provide a construction of this character with tube-receiving sockets or terminals which are completely housed and protected from accidental contact.

Another object is to provide a means for electrically and mechanically protecting and supporting the ends of a gas tube lamp.

Another object is to provide a construction into which the terminals of the lamp tube may be readily inserted and from which they may be readily removed.

Another object is to provide a portable lamp of the character described having embodied as a unit a transformer, a switch for controlling the current in the primary circuit, and the sockets for receiving a gas tube.

Another object is to provide a construction of the foregoing character with means for supporting articles to be displayed.

In carrying out the invention I provide a main portion or base in the form of a casing which encloses the transformer and has an input cable and controlling switch. On this base are mounted two terminal sockets connected to the output of the transformer but insulated from the housing and from each other. These sockets are enclosed in individual housings which also serve to support the ends of the gas tube. A supporting shelf or standard may also be employed to support articles to be displayed and illuminated by the light from the tube.

Fig. 1 is a side view of one form of lamp construction embodying my invention.

Fig. 2 is a plan view of the base of the lamp, the tube being shown in cross section.

Fig. 3 is a side view and partial section.

Fig. 4 is a fragmentary plan view and section.

Fig. 5 is a vertical sectional view showing one of the tube terminals and its housing.

The main housing forming the base consists of a plate 7 and a casing 8, which parts have flanges which overlap and are detachably secured together, for instance, by screws 9. This base may be made of sheet metal or of insulating material if desired.

The transformer may be of any suitable construction having a core 10 adapted to be supported by brackets 11 and soft rubber pads 12 secured by bolts 13. The primary 14 of the transformer is provided with an input cord 15. The secondary 16 of the transformer has output leads 17 connected to terminal bolts 18 which also serve to hold the socket-like clips 19. These bolts and terminal clips are insulated from the top of the casing 8 by an insulating disc 20 and insulating bushings 21.

The lighted tube 22 may be of any suitable form of construction and contain any suitable type of interior electrodes and gas. The tube is provided with external terminals 23 adapted to be inserted into the socket clips 19 and held therein in any suitable manner.

The terminal sockets and the ends of the tube are enclosed in protecting housings each made up in the form shown of a screw base 24 and a cylindrical tubular portion 25 which is adapted to be screwed into the socket 24. An insulating collar 26 is also preferably provided in the mouth of the tube 25 where it may be held in place by a screw ring 27. This collar 26 may be of soft rubber for affording a resilient lateral support for the tube.

Each of the housings is also preferably lined, at least partially, with a layer or tube 28 of insulating material.

A snap switch 30 is also preferably provided in the base and preferably in the low tension side of the circuit so that it will not have to handle the high voltage of the tube.

When such a device is used for advertising or display purposes it is desirable to provide some form of support such as a shelf 31 and/or standard 32. This shelf 31 may be supported on the upper end of the tubular housing 25.

While I have shown the construction in its preferred and simple form, it should be understood that the claims are intended to cover modifications and alterations.

Such a lamp may be made in many different forms and designs and the tube may be of vari-

ous sizes and shapes. The lamp is portable and therefore avoids any of the installation difficulties commonly present with the usual so-called neon signs. In fact, the possibilities of use of this lamp are almost unlimited.

With this construction any design of tube may be used and various designs are interchangeable in the same base. The tubular housings for the terminals not only prevent accidental engagement with the high tension output of the transformer but also serve to support and reinforce the tube at points above the base.

These lamps can be provided with tubes of various colors either by varying the color of glass or the type of gas used. Such tubes consume but very little power, in fact, are most economical and are particularly adapted to use for advertising purposes.

I claim:

1. A portable lamp comprising a base, a transformer housed in the base, said base having yielding supporting pads and brackets connecting the pads and the transformer, and tube-receiving sockets connected to the output of the transformer.

2. A portable gas tube lamp comprising a housing, a transformer resiliently mounted therein and having input and output leads, tube-receiving terminals carried by the housing, protecting means for said terminals, and means for supporting the walls of an inserted tube above the terminals.

3. A portable gas tube lamp comprising a housing, a transformer mounted in the housing, yielding supporting pads for supporting the transformer, and tube-receiving terminals connected to the transformer.

4. In a gas tube lamp, a base comprising a hollow housing including top, bottom and side walls, a transformer mounted in the base and having input and output leads, spaced tube receiving terminals mounted on the top wall of the base and projecting upwardly therefrom, screw threaded cups on the top wall of the base and about the lower portions of the terminals, open ended tubular members disposed about said terminals and having their lower ends threaded to said cups, and said members extending above said terminals and comprising tube supports.

5. In a gas tube lamp, a base comprising a hollow housing including top, bottom and side walls, a transformer mounted in the base and having input and output leads, spaced tube receiving terminals mounted on the top wall of the base and projecting upwardly therefrom, screw threaded cups on the upper wall of the base and about the lower portions of the terminals, open ended tubular members disposed about said terminals and having their lower ends threaded to said cups, and said members extending above said terminals and comprising tube supports, and a ring of yielding material in the outer end of each of said members for engagement with the walls of a tube.

6. In a gas tube lamp, a base comprising a hollow housing including top, bottom and side walls, spaced tube receiving terminals mounted on the top wall of the base and projecting upwardly therefrom, cups on the top wall of the base and about the lower portions of the terminals, open ended tubular members disposed about said terminals and having their lower ends detachably connected with said cups, and said members extending above said terminals and comprising tube supports.

7. In a gas tube lamp, a base including a top wall, spaced tube receiving terminals mounted on said wall and projecting upwardly therefrom, open ended tubular members about said terminals and carried by the top wall of the casing, and said members spaced apart and each of a length extending above said terminals.

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