July 3, 1923. 1,460,394

E. F. TWEEDY

ELECTRIC INCANDESCENT LAMP HOLDER

Filed Jan. 3, 1919

Fig 1

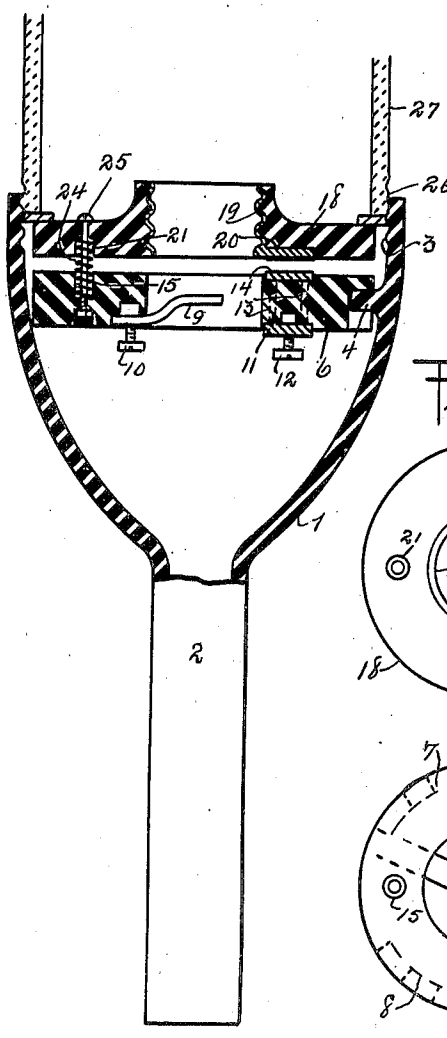


Fig 2

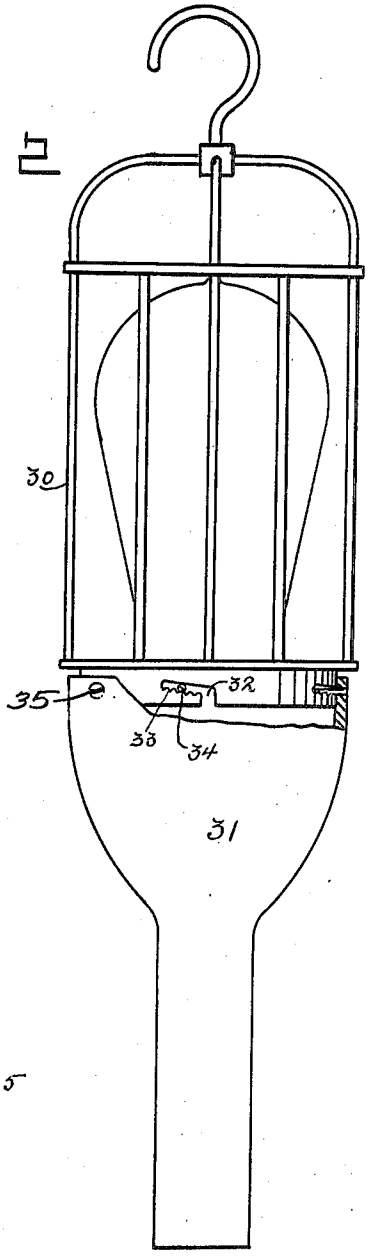
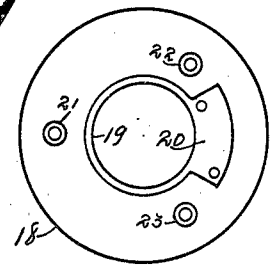


Fig 3



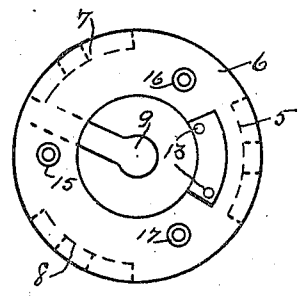


Fig 4

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UNITED STATES PATENT OFFICE.

EDMUND FRANCIS TWEEDY, OF GLENBROOK, CONNECTICUT.

ELECTRIC-INCANDESCENT-LAMP HOLDER.

Application filed January 3, 1919. Serial No. 269,462.

To all whom it may concern:

Be it known that I, EDMUND FRANCIS TWEEDY, a citizen of the United States, and resident of the town of Glenbrook, county of Fairfield, State of Connecticut, have invented certain new and useful Improvements in Electric-Incandescent-Lamp Holders for either stationary or portable use, of which the following is a specification.

While the features embodied in this invention are applicable to an electric incandescent lamp under any conditions of use, they relate particularly to so-called portable lamps, or electrical lighting devices that are adapted to be carried about.

The use of portable lamps is quite general, but on account of the fire risk involved, their use, under certain conditions has been discouraged, except when they are equipped with a protective device. A portable lamp, to avoid this fire hazard, should be protected by a vapor tight globe, with a surrounding guard, where inflammable gases are present, and by a suitable guard alone under certain other conditions of use.

It has been found that the protective guard was properly in place when the portable lamp was approved for connection, is often left off afterward in actual use, particularly if the guard has once been removed to renew a burned out lamp.

I have therefore invented an electric incandescent lamp holder, designed for either stationary or portable use, which relies upon either the vapor proof globe or the protective guard, or a combination of both, to make electrical connection so that the lamp may be lighted, and without said protective device being in place, the electric light cannot be used. My device is also arranged so that the loosening or removal of the guard is not a sufficiently convenient operation to impel the user to make use of this means of turning off the electric light.

The following is what I consider a good means of carrying out the invention and the accompanying drawing should be referred to for a complete understanding of the specification which follows:

In the drawing:—

Fig. 1, is a sectional view of the lamp holding device.

Fig. 2, shows a complete assembly with guard and lamp in position.

Fig. 3, is a reversed plan view of a part removed, and

Fig. 4 is a plan view of an adjacent part.

Similar reference numerals indicate like parts in all of the figures where they appear.

The main or enclosing member consists of a container cup or hollow body member 1 at one end of which is a handle 2 formed integral with or secured to the hollow body member 1. The larger open end of the hollow body member is provided with internal screw-threads 3 and within the body member are a plurality of inwardly extending projections 4 which are spaced inwardly from the threaded end as clearly shown in Figure 1.

A base 6 which may be a disk is provided with grooves 5, 7 and 8 into which the projections 4 engage and a partial revolution in either direction locks the base 6 into the body member and upon the projections 4. The base 6 is provided with a central opening projecting into which is a semi-flexible metallic contact finger 9 adapted to make contact with the center contact member in the base of an ordinary lamp, and a binding screw 10 provides a means whereby one side of a current supply line may be secured to the contact finger 9.

A block 11 provided with a binding screw 12 receives the other side of the supply line and pins or studs 13 connect the block 11 with a stationary contact plate 14 arranged upon the outer face of the base 6.

I also provide a plurality of countersunk perforations 15, 16, and 17 through the base 6, the functions of which will be later described.

A receptacle 18 is arranged within the body member adjacent to the outer side of the base 6 and in this receptacle I secure a shell 19 for the base of the lamp which shell has a contact plate 20 extending parallel to and adapted to impinge upon the contact plate 14 when the lamp is lighted.

The receptacle 18 is also provided with a plurality of countersunk perforations 21, 22 and 23, as will be noted upon reference to the sectional view, Figure 1. The adjacent portions of the recesses in the base 6 and receptacle 18 are of an increased diameter and in these adjacent portions and extending between the members 6 and 18 are compression coiled springs as shown at

24. Screws 25 secure the members 6 and 18 loosely together and limit the outward motion of these parts, the springs 24 acting to force the receptacle 18 away from the base 6 when conditions make it possible.

In the screw-threaded open end of the body member 1, I insert a screw-threaded ring 26, which forms the bottom, or innermost end of a guard globe or other device 27. The screw threaded portion 26 bears upon the run of the receptacle 18 and when a lamp is in the shell 19 and the guard 27 is screwed down upon the rim of the receptacle 18, the same will be forced toward the base 6 against the compression of the springs 24, the contact plate 20 engages with the plate 14, and with suitable supply lines attached at 10 and 12, a lamp screwed in the shell 19 will be illuminated. Should the guard 27 be omitted, or should it be not properly secured in the socket 1, the contact between 14 and 20 will be broken. This insures that a guard 27 must be in proper position at all times when the lamp is in use and comprises one of the principal advantages of my invention.

As shown in Figure 2 I may employ a guard 30 or other device which will be secured in the hollow body member by means of a bayonet joint. Such a joint consists of a slot 32 one edge of which is serrated as shown at 33 and a pin 34 is secured in the body 3 and adapted to be engaged in the slot 32 securing the guard or other device in position and it will be noted that the slot 32 is inclined so that sufficient pressure may always be brought to bear upon the receptacle 18 to move this member a proper distance inward to obtain proper contact between the plates 14 and 20.

Any number of slots 32 and corresponding pins 34 may be employed.

The handle 2 formed integral with or secured to the hollow body member 1 should be tubular. The diameter of the hollow body member, length of handle and size of all of the parts may be changed at will or other similar operating parts may be substituted and other modifications may be made within the scope of the appended claims without departing from the principle or sacrificing the advantages of this invention.

I may provide means for securing the guard in position and at the full extent of its motion in either direction and such a means may consist of a screw 35 as shown in Figure 2.

Having carefully and fully described my invention what I claim and desire to secure by Letters Patent is:—

1. A lamp holder comprising a hollow body member, a base within said hollow body member and adapted to be removably secured therein, a lamp supporting receptacle within said body member and means between said base and said receptacle for forcing the same away from each other and independent means for forcing said receptacle toward the base.

2. A lamp holder comprising a hollow body member, a base adapted to be secured therein, a receptacle adjacent to said base and adapted to support a lamp, means for yieldably forcing said receptacle away from the base, contacts carried by both the receptacle and base, and independent means to hold the contacts in engagement when the lamp is in operation.

3. A lamp holder comprising a hollow body member, a base adapted to be engaged therein a contact plate carried by the base for connection with one supply line of an electric circuit, a receptacle adjacent to said base and provided with lamp supporting means, a movable contact carried by the receptacle means for forcing the said receptacle away from the base, and independent means received in said cup for causing said receptacles to impinge upon the base.

4. A lamp holder comprising a hollow body member, a base arranged in said cup member, and having a contact, a receptacle having lamp supporting means and a contact yieldable means between said base and receptacle for forcing the receptacle away from the base to open the circuit through said contacts and independent means for moving the contacts into engagement to close the circuit.

5. A lamp holder comprising a hollow body member, a base adapted to be secured therein, said base being provided with a plurality of contacts arranged on opposite faces, and a receptacle having a lamp supporting means and a contact, means for yieldably forcing said receptacle away from the base means for limiting the movement of the receptacle relative to the base, and independent means to hold the contacts in engagement.

6. A lamp holder comprising a hollow body, a guard globe engaging said body a pass member supported within said body, a lamp bulb receptacle supported within said body and having spaced relation with said base member when said guard globe is not inserted in said body and electrical contacts on the receptacle adapted to engage each other and complete part of an electric circuit when said guard globe is inserted in said body.

Signed at the city of New York, county and State of New York, this 17th day of December, 1918.

EDMUND FRANCIS TWEEDY.