March 30, 1937. C. I. SMITH 2,075,364

CONVENIENCE LIGHT FIXTURE

Filed Feb. 16, 1935

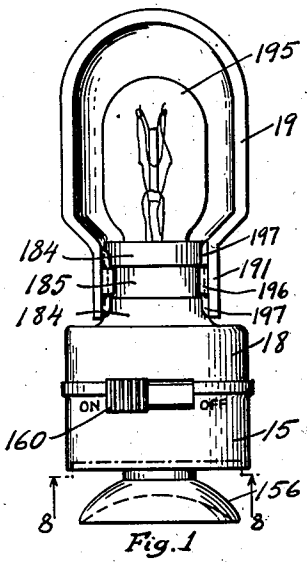


Fig. 1

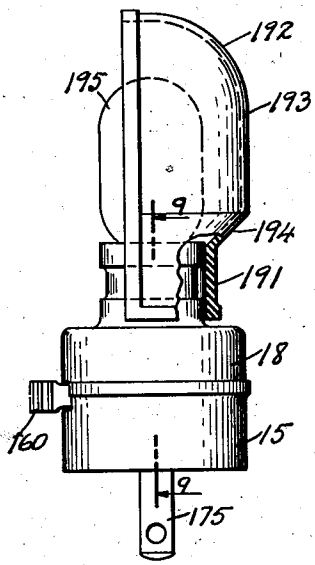


Fig. 2

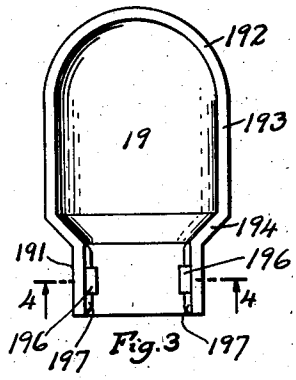


Fig. 3

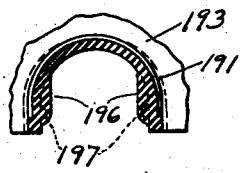


Fig. 4

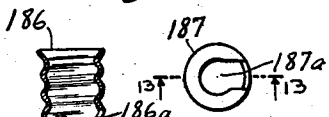


Fig. 13 Fig. 14

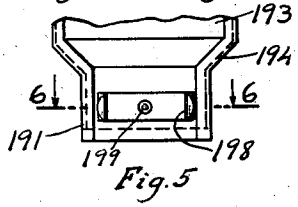


Fig. 5

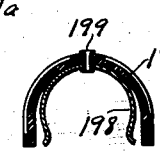


Fig. 6

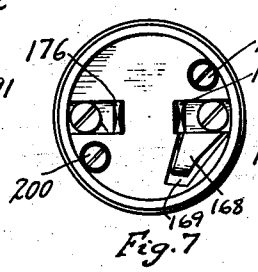


Fig. 7

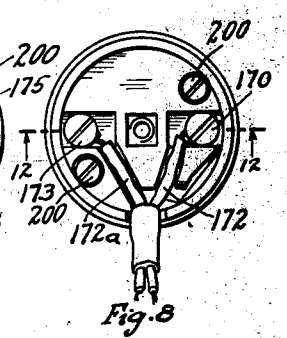


Fig. 8

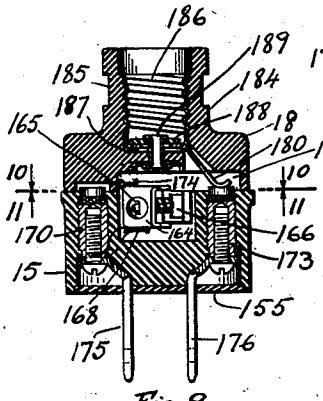


Fig. 9

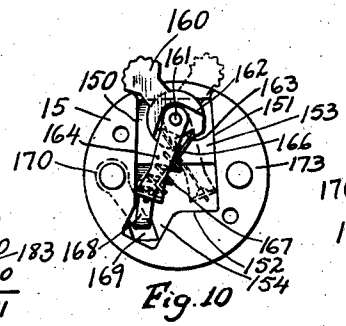


Fig. 10

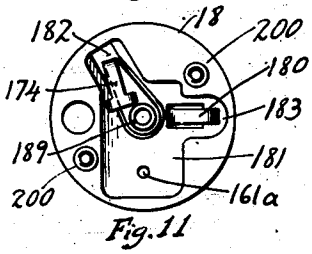


Fig. 11

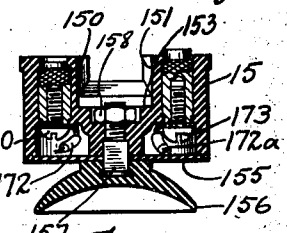


Fig. 12

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CONVENIENCE LIGHT FIXTURE

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Application February 16, 1935, Serial No. 6,773

3 Claims. (Cl. 240—73)

This invention relates to portable light fixtures and more particularly to a fixture which may securely and quickly be attached to a wall or other flat surface and connected to a wall receptacle by means of a cord and connection plug.

It is an object of this invention to provide a fixture of this type which is small in size, convenient to be attached, which consumes only a small amount of current and which is particularly useful as a night light.

It is another object of this invention to provide a fixture of this type which is equipped with a switch substantially of the toggle type close to the light socket.

It is a further object of the invention to provide a fixture of the above description with a removable and adjustable shade which may be rotated around the lamp therein to throw light in only one direction in the room and shade the room in all other directions.

With these and other objects in view the invention provides a fixture of simple construction and few parts, which is easy to manufacture and which can be sold at a reasonable price.

The invention will be better understood from the description to follow taken in connection with the accompanying drawing in which—

Figure 1 is a front elevation of the fixture adapted for instant attachment to any flat surface, the fixture embodying one form of my invention.

Figure 2 is a side elevation of the fixture shown in Figure 1 equipped for direct attachment to a wall receptacle.

Figure 3 is a front elevation of the shade for the fixture shown in Figure 1.

Figure 4 is a horizontal sectional view on line 4—4 of Fig. 3.

Figure 5 shows the lower portion of the shade shown in Fig. 3 with a modified means of attachment to the fixtures shown in Fig. 1.

Figure 6 is a horizontal sectional view on the line 6—6 of Fig. 5.

Figure 7 is a bottom plan view of Fig. 2.

Figure 8 is a bottom plan view on line 8—8 of Fig. 1.

Figure 9 is a vertical sectional view on line 9—9 of Fig. 2.

Figure 10 is a plan view of the top of the base on line 10—10 of Fig. 9.

Figure 11 is a plan view of the bottom of the cover portion on line 11—11 of Fig. 9.

Figure 12 is a vertical sectional view on line 12—12 of Fig. 8 with suction cup attached.

Figure 13 is a sectional view of the screw shell of the lamp socket.

Figure 14 is a bottom plan of Fig. 13.

Referring to the drawing, 15 is the cylindrical base portion of the fixture shown in Figures 1 and 2 and consists preferably of molded phenolic compound. The interior of this portion is shown in Figure 10 and it constitutes the housing for a snap switch mechanism which is lodged in a deep rectangular recess formed in base 15 bounded by two parallel walls 150 and 151, rear wall 152 and bottom 153. The front of the rectangle, opposite to 152, is an opening in the cylindrical outside of base 15. Near this opening, central between walls 150 and 151, a pivot pin 161 is mounted in a cylindrical aperture formed in bottom 153. This pin extends a distance above the top plane of base 15 and has mounted thereon a switch lever handle 160 of insulating material which has a large hub portion 162, with a recess 163 formed in its periphery opposite to handle 160. On pin 161 is mounted a U-shaped metallic bridge member 164 having aligned apertures near the free ends of its two parallel legs which are adjacent to opposite sides of hub 162. The bridge portion of 164 which joins the opposite ends of the two legs is provided with a central aperture 165 through which passes the narrow portion of operator blade 166 which is surrounded by a helical spring 167. That part of operator blade 166 which extends beyond spring 167 is of greater width than the part surrounded by the spring and forms shoulders to lean against the end coil of spring 167. The opposite end of the wide portion of 166 leans against one corner of the recess 163 of hub 162. When handle 160 is moved towards the right in Fig. 10 the shoulders on operator blade 166 will compress spring 167 and the lower end of 166 will slide through aperture 165 until the length of the operator blade 166, within bridge member 164, is equal to the distance between the flat face of hub 162 within recess 163, and the bridge portion of 164. Blade 166 will then be moved to the opposite end of recess 165 and the bridge piece 164 be driven by spring 167 into the dotted position of Fig. 10. The large recess in base 15 has an extension 154 at its lower left hand corner as shown in Fig. 10, wherein is located a bent spring 168 which passes through an aperture 169 in the base 15 to the lower side thereof and is there fastened to the terminal post 170 which also carries a conductor plug prong 175 as shown in Fig. 9 or a wire conductor 172 as shown in Fig. 8.

When switch lever 160 is in the position shown

in the Fig. 10, the upper end of spring 168 forms a contact with the lower leg of bridge member 164. A second terminal post 173 in diagonally opposite direction to 170 passes through base 15, and carries at its lower end a plug prong 176 as shown in Fig. 9 or a wire conductor 172a as shown in Figs. 8 and 12. The base 15 is covered by a cylindrical cover 18 of which the lower face is shown in Fig. 11. It is provided with a large rectangular recess 181 and a smaller rectangular extension recess 182 thereon, which recesses are substantially congruent to the recesses in base 15 when assembled thereon. There is also connected to 181 a second curved extension recess 183. On the top surface of cover 18 is formed coaxially therewith, a hollow cylindrical portion 184 of smaller diameter than the lower part of the cover, and it is provided with an annular groove 185 on its outside. In the hollow part of 184 a lamp socket 186 preferably of the screw type is mounted. The bottom of socket 186 is formed by an annular ring 187. It has an opening 187a which connects with an opening 186a at the lower end of the threaded side wall of socket 186. A washer 188 of hard fireproof insulating material covers the inside of the socket bottom and ring 187. A metallic conductor 189 which has a head above the top of washer 188 extends insulated through the same and axially through the wall of cover 18 into the recess 181 therein. Conductor 189 carries at its lower end within recess 181 a contact spring 174 (see Fig. 11) preferably riveted thereto, and this spring is so bent that its free end forms a contact piece which lies against the top surface of bridge member 164 when the switch is closed by cover 18. On the lower metallic annular rim 187 of socket 186 rests a washer forming part of contact spring 180 which extends downward through an aperture in the body of cover 18 into the recess extension 183 so that it contacts with the upper end of terminal post 173. The terminal posts 170 and 173 may have their lower ends connected as shown in Fig. 8 to wire conductors 172 and 172a which lead through a suitable aperture in the side wall of base 15 to the outside of the fixture; or they may have connection plug prongs 175 and 176 connected thereto as shown in Fig. 9. In both cases the lower openings in base 15 are covered with a suitable circular plate 155 of insulating material recessed into the lower surface of base 15 and provided with a square central aperture. When the wire conductor connection shown in Fig. 8 is used a soft rubber vacuum cup 156 shown in Figures 1 and 12 is fastened to the bottom of base 15 by an axial screw 157, with a square shoulder portion lodged in a central aperture in the bottom of base 15 and a head anchored in the rubber of cup 156. Cup 156 is fastened by a nut 158 mounted in the interior of base 15. The top portion 18 is fastened to the base 15 by two screws 200 which pass through openings in plate 155 and in the base and which are threaded into openings in the body of top portion 18. When the two parts 15 and 18 are fastened together the upper part of pivot pin 161 is lodged in aperture 161a in cover 18 so that bridge member 164 is guided between the bottom walls of the recesses in 15 and 18.

On the cylindrical top part 184 on cover 18 is mounted the neck 191 of a shade 19 shown in Figures 1, 2 and 3. Shade 19 is preferably made of phenolic compound but may be made of metal or other suitable material. Its top portion 192 is part of a hollow sphere; its middle portion 193 is part of a hollow cylinder adapted to surround the larger part of an incandescent lamp 195. A conical portion 194 joins the shade portion 193 to the neck 191. The interior cylindrical surface of neck 191 fits against the outer surface of the top part 184 of cover 18. In plan the whole shade is limited by its vertical front plane to a circular segment slightly larger than a semicircle. The neck 191 (see Fig. 4) is rotatably mounted on 184 by a pair of horizontal ribs 196 which fit into recess 185 of cover 18 and extend parallel to each other on opposite sides of neck 191 and perpendicular to the front plane of shade 19 from points near that plane to their intersection with the interior surface of neck portion 191. They permit horizontal rotation of the shade around the lamp axis, but prevent vertical motion. A pair of vertical ribs 197 are formed near and parallel to the front plane of the shade and in front of a diametrical plane parallel to the said front plane they are intersected by ribs 196 as shown in Figs. 3 and 4. Shade 19 is placed on the top portion 184 of the cover 18 by slipping ribs 196 horizontally into groove 185. When vertical ribs 197 during that action pass the vertical diametrical plane of 184, they cause the neck portion 191 of the shade to expand slightly (as shown in dotted lines in Fig. 4) by the resiliency of the material from which the shade is made and by continued pressure to jump over the diametrical section and then contract to lock the shade on the fixture as shown in Fig. 1 so that it can only be detached therefrom by a fairly strong horizontal pull.

In Fig. 6 a modification of the holding means of shade 19 to cover 18 is shown. In this construction ribs 196 and 197 are omitted but an arcuate band spring 198 of the width of groove 185 is fastened by a rivet or similar means 199 to the rear wall of 191. This spring is open at its front and its two ends are bent outward so as to form the equivalent of the two vertical ribs 197 while the spring itself forms the equivalent for horizontal ribs 196 as means to hold the shade fastened to and yet rotatable on the fixture. This construction is preferably applied when the shade is made of non-resilient material.

From the foregoing it will be seen that the present invention provides a novel fixture which is useful in many ways particularly as it may be made either for quick attachment to any place of a wall by means of the vacuum cup thereon and a plug connection to a convenient wall receptacle outlet, or it may itself be provided with prongs to fit into such receptacle outlet. In either form the rotatable shade thereon may be used to shield certain parts of a room where no light is desired and to illuminate others. For this reason, this device is particularly suitable as a night light, especially because the snap switch connected therewith permits a person to turn on the light by the switch thereon without groping in the dark to find a wall receptacle and then to find the aperture therein for insertion of the plug. The mechanical construction of the device is of the utmost simplicity and so compact that its center of gravity is brought close to its supporting surface and the device is easily assembled and taken apart by the insertion or removal of only two screws 200. The lamp used in this device consumes only 5 watts of current and is therefore very economical.

While this device has been illustrated in different forms it is adaptable to many modifications in its details of construction in view of which it is to be understood that the claims are to be con-

strued and the invention is to be limited only by the scope of the claims and not by the illustrated embodiments.

I claim:

1. A convenience light, in combination, a suction cup, an assembly screw bolt having one end anchored in the cup and its other end extending therefrom, a cylindrical base portion connected to said bolt, said base having a chambered portion open at the top and having side openings, stationary switch contacts in the side openings, a movable switch member in the chambered portion, an operating lever for the movable switch member protruding exteriorly of the base, a cylindrical cover for the base, said cover having a central chamber and having a peripheral groove, a lamp shell in the cover chamber, a lamp shade removably engaging said cylindrical cover and having spaced ribs positioned on the same horizontal plane for engaging the peripheral groove of the cover and a pair of vertical ribs adapted to engage the cover, said assembly affording convenient switching mechanism at the point where the light is mounted.

2. A convenience light, in combination, a cylindrical base portion provided with electrical contacts, said base portion having a chambered portion open at the top and having side openings, stationary switch contacts in the side openings, a movable switch member in the chambered portion, an operating lever for the movable switch member protruding exteriorly of the base, a cylindrical cover for the base, said cover having a central chamber and having a peripheral groove, a lamp shell in the cover chamber, a lamp shade removably engaging said cylindrical cover and having spaced ribs positioned on the same horizontal plane for engaging the peripheral groove of the cover and a pair of vertical ribs adapted to engage the cover.

3. A convenience light, in combination, a cylindrical housing having a base portion provided with electrical contacts, said base portion having a chamber and side openings, stationary switch contacts in the side openings, a movable switch member in the chamber, an operating lever for the movable switch member protruding exteriorly of the base portion, a cylindrical cover portion having a central chamber and having a peripheral groove, a lamp shell in the cover chamber, a lamp shade removably engaging said cylindrical cover portion and having spaced ribs positioned on the same horizontal plane for engaging the peripheral groove of the cover portion and a pair of vertical ribs adapted to engage the cover portion.

CHRISTOPHER I. SMITH.