Sept. 29, 1970 A. NATHANSON 3,531,637

TOUCH OPERATED ELECTRIC LIGHT

Filed May 6, 1968

Fig. 1

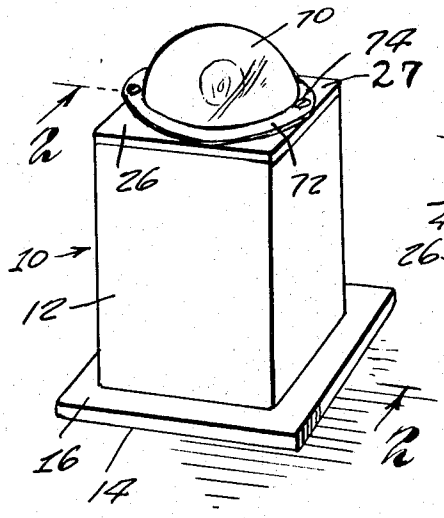


Fig. 3

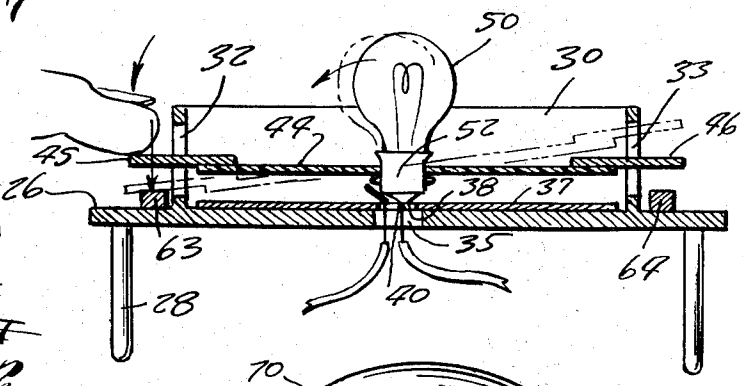


Fig. 2

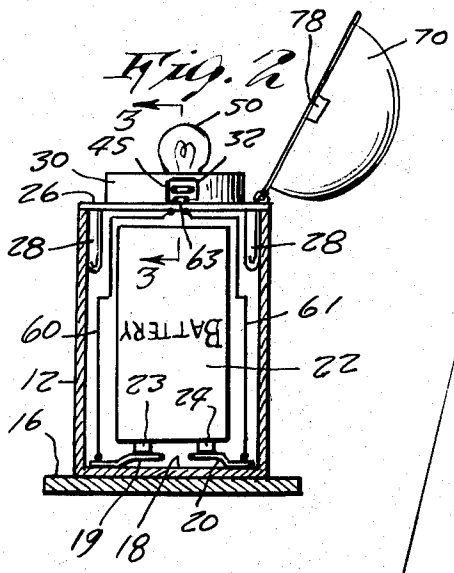
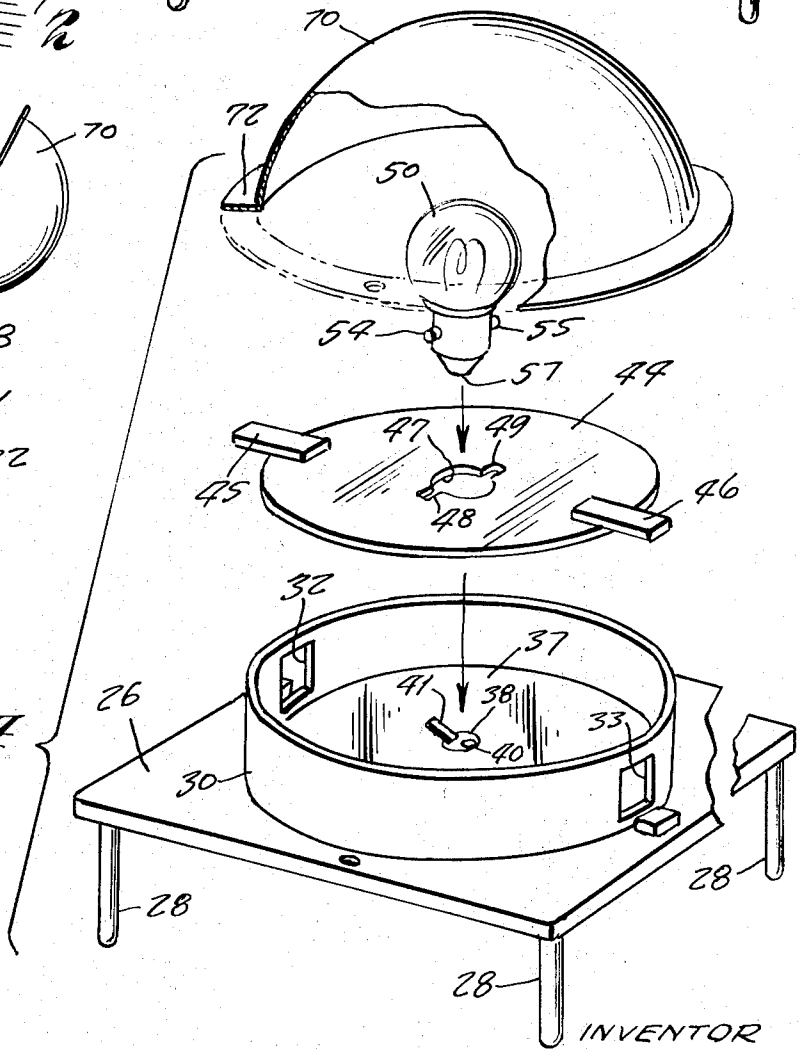


Fig. 4



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TOUCH OPERATED ELECTRIC LIGHT

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ABSTRACT OF THE DISCLOSURE

An electric light unit embodying a housing having a closed bottom and an open top supporting a detachable friction held cover plate. An annular collar on the cover plate contains an insulator tilt plate having diametrically opposed metal handle bars projecting through openings in the collar. The tilt plate carries an electric light bulb. A central opening in the cover plate carries a contact point and an inclined contact strip both connected by conductors to a source of electric supply within the housing. The lower terminal contact of the bulb is always seated on the contact point and tilting of the tilt plate in one direction will cause the contact side of the base of the bulb to engage the contact strip to close the circuit and light the bulb. A pair of magnets exteriorly of the collar seated on the cover plate are provided such that when the tilt plate is tilted by finger pressure on one handle bar the same will engage its associated magnet to cause closure of the circuit. Tilting of the tilt plate in the opposite direction by finger pressure on the other handle bar will cause the latter to engage its associated magnet to hold the tilt plate in inoperative position. Carried by the closure plate is a removable transparent dome.

The primary object of this invention is to provide an electric unit containing a source of electric supply and mounting a tilt plate carrying an electric light bulb having a pair of finger engaging handles such that a light finger touch on one handle will cause the tilt plate to close an electric circuit to the bulb to light the same and finger pressure on the other handle will open the circuit to put out the light.

Another object of this invention is to provide in the unit a housing having a closed bottom and an open top closed by a detachable cover plate friction hold to the housing and including an annular collar on the upper surface of the cover plate.

A further object of this invention is to provide an opening in the center of the closure plate with means supporting a pair of contacts connected to a battery or transformer connected to house current within the housing, and mounting within the annular collar the bulb carrying tilt plate with its finger handles projecting outwardly of the collar, the base of the bulb extending through the tilt plate having its lower terminal contact engaging one of the pair of contacts and when tilted the side of the bulb base engaging the other contact to close the circuit. A still further object of this invention is to provide a pair of magnets on the cover plate each to be engaged by one of the handles to hold one handle when the tilt plate is tilted to its operative position to close the circuit and when the tilt plate is tilted to is inoperative position to open the circuit the other handle will be held by its associated magnet.

A still further object of this invention is to provide the cover plate with a removable transparent dome.

Further objects of the invention will appear as the description proceeds.

To the accomplishment of the above and related objects, my invention may be embodied in the form illustrated in the accompanying drawings, attention being

called to the fact, however, that the drawings are illustrative only, and that change may be made in the specific construction illustrated and described within the scope of the appended claims.

FIG. 1 is a perspective view of the finger touch operated electric light unit.

FIG. 2 is an elevational view in cross section of the electric light unit showing the transparent dome hinged.

FIG. 3 is a detail cross sectional view taken on line 3—3, FIG. 2.

FIG. 4 is an exploded view of associated parts of the electric light unit.

Referring to the drawings in detail a light or lamp unit **10** suitable for mounting in any desired location is seen to consist of a rectangular box like housing **12** having a base **14** secured thereto in any suitable manner and of larger dimensions such as to provide a lateral flange **16** extending outwardly from each of the sides of the housing. While the housing **12** is shown to be square in cross-section the same may be made cylindrical in form if so desired. It is to be noted that the bottom of the housing is closed by a bottom wall **18** to which the base **14** is secured.

Mounted interiorly on bottom wall **18** are a pair of spaced resilient leaf battery contacts **19, 20**. A battery element **22** in inverted position is contained within the housing **12** with its contact poles **23, 24** respectively engaging the leaf contacts **19, 20**.

A readily removable cover plate **26** dimensioned to seat directly on the top edges **27** of the housing **12** has its side edges lying flush with the sides of the housing **12** as seen in FIGS. 1 and 2. A depending spring finger **28** is secured to the underside of cover plate **26** in its closed seating engagement on the open end of housing **12**. Securely and axially attached to the upper surface of the cover plate **26** is a cylindrical collar **30**. Provided in the wall of the cylindrical collar **30** are a pair of diametrically opposed rectangular openings **32, 33**, and centrally in the cover plate **26** there is provided an opening **35**.

Within collar **30** and seated on top of cover plate **26** is a disc **37** preferably of insulating material having a central opening **38** disposed co-axial with opening **35**. The insulator disc **37** may be secured to the cover plate **26** in any desired manner (not shown). Suitably mounted axially in disc opening **38** is a contact point **40** and to one side of the disc opening **38** there is suitably fixed an inclined or tilted contact strip **41**. Fitted within the collar **30** is a light bulb carrying tilt plate **44** of insulating material provided with a pair of diametrically opposed metal handles **45, 46** arranged to project outwardly respectively through openings **32, 33** in the collar. An opening **47** is formed centrally in bulb carrying plate **44** and is provided with diametrically opposed notches **48, 49**. A conventional light bulb **50** (of the automobile head light type) is provided with a base **52** and diametrically opposed projecting lugs **54, 55** which latter when inserted through opening **47** and notches **48, 49** will on a 90 degrees turn of the bulb secure the bulb to the carrying plate **44**. The lower terminal contact **57** of bulb base **52** will seat on the axial contact point **40** holding tilt plate **44** horizontal, as seen in FIG. 3. A pair of conductors **60, 61** electrically connect contacts **19, 20** respectively to contact strip **41** and contact point **40**, as seen in FIGS. 2 and 3.

Seated on cover plate **26** and exteriorly of each opening **32, 33** of collar **30** are magnets **63, 64** which may be secured to the cover plate in any desired manner.

It is seen that by finger touching arm **45** of tilt plate **44** and pressing down a distance such that metal arm **45** will contact magnet **63**, that the magnet will hold the tilt plate **44** in its tilted position as shown by dotted lines

in FIG. 3. Thus tilted, the side of bulb base **52** will engage contact strip **41**, closing the circuit and lighting bulb **50**. The bulb **50** will stay lit as long as magnet **63** holds arm **45** of tilt plate **44**. To open the circuit and to cause bulb **50** to become unlit, the other handle bar **46** is finger touched and pressed down to engage the other magnet **64** which will thereby securely hold the tilt plate **44** in its inoperative position (keeping bulb base **52** spaced from contact strip **41**). At all times the lower terminal contact **57** of the bulb **50** will be in contact engagement with contact point **40**.

Provided as a closure for bulb **50** is a protective transparent dome **70** having a peripheral ring **72** which may be either detachably secured to cover plate **26** by screw fasteners **74** (FIG. 1) or may even be hinged at one side as at **76** to the cover plate **26**. A recess **78** is provided at each side of the dome to accommodate the handles **45**, **46** and magnets **63**, **64**.

The electric battery operated unit **10** is easily operated, efficient, fool-proof, simple to manufacture and of low cost. Instead of being battery operated, there may be provided within housing **12** a suitable transformer and the unit connected to the house current in the manner well known.

While certain novel features of my invention have been shown and described and are pointed out in the annexed claims, it will be understood that various omissions, substitutions and changes in the forms and details of the device illustrated and in its operation can be made by those skilled in the art without departing from the spirit of the invention.

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

1. An electric light unit comprising:

(a) a housing closed at its bottom and having an open top,

(b) a closure plate seated on the open top of the housing and removably secured thereto,

(c) there being a central opening in the closure plate,

(d) means on the closure plate mounting a pair of contacts in said central opening,

(e) a tilt plate,

(f) an electric light bulb mounted on said tilt plate having its base terminal contact engaging one of said pair of contacts,

(g) finger engaging means on said tilt plate for selectively tilting the same in one direction to have the bulb base side engage the other of said pair of contacts, and

(h) a source of electric supply in said housing connected to said pair of contacts,

whereby with the tilt plate tilted in said one direction the circuit will be closed to light the bulb and tilting of the tilt plate in the opposite direction will break the circuit to put out the light, including,

(i) an annular collar on the upper side of said closure plate,

(j) there being a pair of diametrically opposed openings in said collar,

(k) said tilt plate being of insulating material having a central opening for mounting said electric light bulb, and

(l) a pair of metal handles secured in diametrically opposed relation to said tilt plate, and

(m) each handle projecting outwardly of an associated opening in said collar.

2. The electric light unit of claim **1**, wherein said means on the dome plate mounting said pair of contact comprises:

(a) an insulating disc within said collar seated on said closure plate,

(b) there being a central opening in said insulating disc co-axial with the opening in said closure plate,

(c) one of said pair of contacts being mounted axially in the opening of said insulating disc and constituting a contact point engaged by the base terminal contact of said bulb, and

(d) the other of said pair of contacts being a contact strip mounted at the edge of said insulating disc opening in a tilted position.

3. The electric light unit of claim **2**, including:

(a) a pair of magnets mounted on said closure plate exteriorly of said collar and each in opposed relation to an opening in said collar, and

(b) each handle when depressed being engaged with an adjacent magnet to hold the tilt plate in its selected tilted position.

4. The electric light unit of claim **3**, including:

(a) a plurality of depending spring fingers on said closure plate arranged to frictionally engage the inside surface of said housing for removably securing the closure plate to the housing.

5. The electric light unit of claim **4**, including:

(a) a transparent dome detachably secured to said closure plate and enclosing said collar and its associated parts, and

(b) opposed recess means in said dome base through which said handles extend.

6. The electric light unit of claim **5**, including:

(a) a pair of leaf contact strips at the closed bottom of said housing,

(b) said electric supply source being a battery having its contacts engaging said contact strips, and

(c) conductors connecting said contact strips to said pair of contacts carried by said insulating disc.

7. The electric light unit of claim **5** wherein:

(a) said electric supply source being a transformer within said housing,

(b) conductor means connecting said transformer to an outside source of electric supply, and

(c) conductors within said housing connecting said transformer to said pair of contacts carried by said insulating disc.

References Cited

UNITED STATES PATENTS

2,166,657	7/1939	Evelyn	240—10.61
3,274,382	9/1966	Fattori	240—10.6

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