Jan. 1, 1952

C. R. LEWIS

2,581,116

TEST LIGHT AND SOCKET THEREFOR

Filed May 7, 1948

Fig. 1.

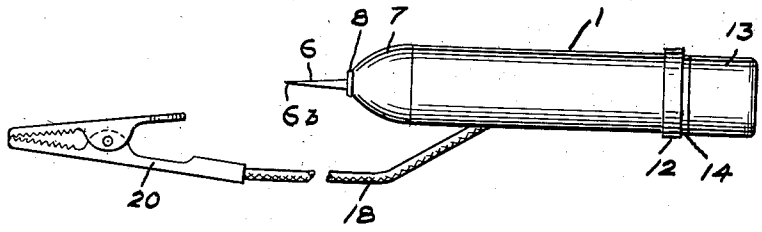


Fig. 2.

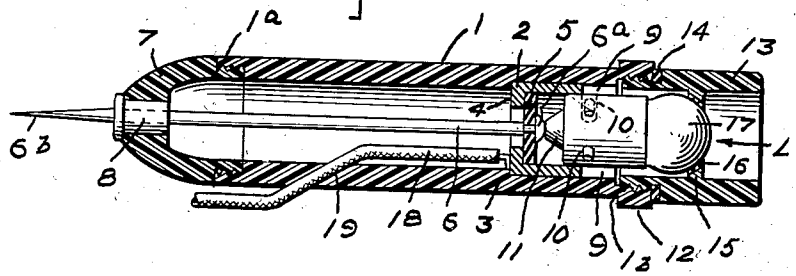
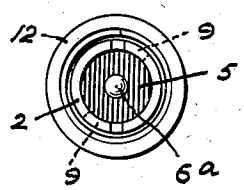


Fig. 3.



Inventor

COURTNEY R. LEWIS

By Ogle R. Singleton

Atty.

Patented Jan. 1, 1952

2,581,116

UNITED STATES PATENT OFFICE

2,581,116

TEST LIGHT AND SOCKET THEREFOR

Courtney R. Lewis, Mount Holly, Ark.

Application May 7, 1948, Serial No. 25,633

1 Claim. (Cl. 175—183)

1

My invention relates to a new and useful improvement in test lights and sockets therefor and is designed to provide a device having a signal lamp for use in testing electrical circuits. The particularly novel and useful features of my improved device are the socket for the lamp, the casing in which the socket is provided and the metallic probe connected with the lamp circuit.

While I have illustrated in the drawing and have hereinafter fully described one specific embodiment of my invention, it is to be distinctly understood that I do not consider by invention to be limited to said specific embodiment but refer for its scope to the claim appended hereto.

In the drawing:

Fig. 1 is a side elevation of my improved device.

Fig. 2 is a longitudinal section.

Fig. 3 is an end elevation of the device showing the lamp socket, the lamp and cap being removed.

As shown in the drawing, my improved device has a cylindrical casing 1 in which is seated a metallic shell 2 bearing on a shoulder 3 on the inner wall of the case 1. The shell 2 has, at its end bearing on the shoulder 3, an inwardly turned flange 4 on which is seated an insulated, resilient plate 5 through which passes an electrode 6 having an upset head 6–*a* seated on the plate 5 interiorly of the shell 2. The case 1 has its end 1–*a* closed by a suitable cap 7 threaded therein, and having a suitable insulated gasket 8 through which passes the electrode 6 having a finely pointed terminal probe 6–*b*. The shell 2 has suitable bayonet-latch slots 9 in which are received the lugs 10 of the lamp L, the tang 11 of the lamp L being brought into press contact with the head 6–*a* when the lamp L is mounted in the shell 2. The case 1 has on its end 1–*b* a peripheral flange 12 in which is threaded a tubular cap 13 having a suitable resilient, water-proof gasket 14 clamped between case 1 and cap 13 when cap 13 is set up on case 1. The cap 13 has an inner peripheral flange 15 carrying a suitable resilient, water-proof gasket 16 which bears against the bulb 17 of the lamp L when the cap 13 is set up on the case 1.

The shell 2 has connected thereto a suitable insulated electric wire 18 which passes out of the case 1 through a suitable port 19 and is provided on its outer end with a suitable clamp 20.

From the foregoing description of the details of construction of my improved device, its use and operation will be obvious. To assemble the device, the cap 7 is mounted on the case 1, the gasket 8 mounted in cap 7. The electrode 6 is mounted in the gasket 8. The shell 2 is mounted in case 1, the plate 5 slipped over the end of the electrodes 6 is seated on flange 4. The end of the electrode 6 projecting through plate 5 is then upset to form the head 6–*a*. The lamp L is mounted in shell 2 and turned to lock lugs 10 in

2

slots 9. The cap 13 is then screwed on the end 1–*b* of the case 1 until the gaskets 14 and 16 are clamped to produce water-tight seals. It is to be understood that the parts are so designed that when the lamp L is seated in the shell 2, the tang 11 bearing on the plate 6–*a* slightly compresses the resilient plate 5 to effect a tight joint for suitable electrical contact between the lamp L and the electrode 6. It is obvious that the gaskets 14 and 16 effecting a water-tight seal protect the lamp L and the electrical circuit of the device.

When the clamp 20 is applied to a portion of a circuit to be tested, the probe 6–*b* may be pressed through insulation to test various parts of the circuit, contact of the probe 6–*b* with a "hot wire" causing the lamp L to glow.

Having described my invention, what I claim is:

In a test light, the combination of a hollow casing having an inner peripheral shoulder; an insulated gasket mounted in said casing; a metallic cylindrical shell mounted in said casing and having a peripheral flange seated on said shoulder; a resilient insulated plate seated on said flange in said shell and having an orifice, said gasket, said flange and said orifice being co-axial; an electrode passing through said orifice, said flange and said gasket and having a probe on its end exterior said casing and a head seated on said plate in said shell; an electric lamp in said shell and having a pair of electric leads; a slot-and-pin connection between said lamp and said shell to effect press electric contact of said head with one of said leads and electric contact of said shell with the other of said leads; a tubular cap threaded in said casing adjacent said shell and encircling said lamp, and having an inner peripheral flange; a resilient gasket carried by said cap flange and bearing against said lamp when said cap is set up in said casing; and an electric wire connected to said shell and leading from said casing.

COURTNEY R. LEWIS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,395,819	Guy	Nov. 1, 1921
1,707,051	Colosoff	Mar. 26, 1929
2,195,189	Sauer	Mar. 26, 1940
2,212,307	Smida	Aug. 20, 1940
2,458,628	Okun	Jan. 11, 1949

FOREIGN PATENTS

Number	Country	Date
259,275	Great Britain	Sept. 20, 1926
129,628	Switzerland	Nov. 29, 1927