April 5, 1932. K. PERKINS 1,852,365

ELECTRIC LAMP SOCKET

Filed June 25, 1930

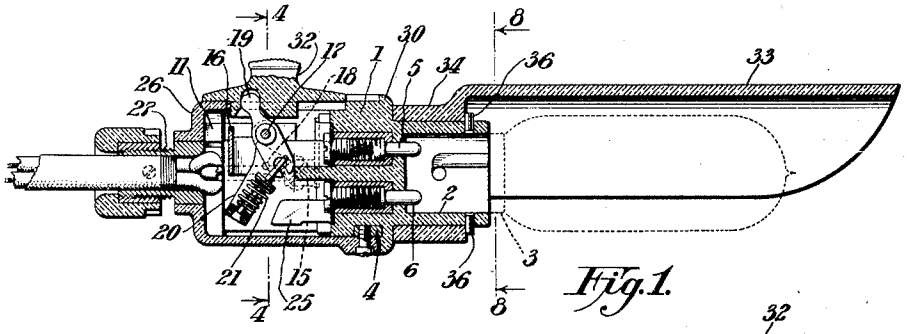

Fig.1.

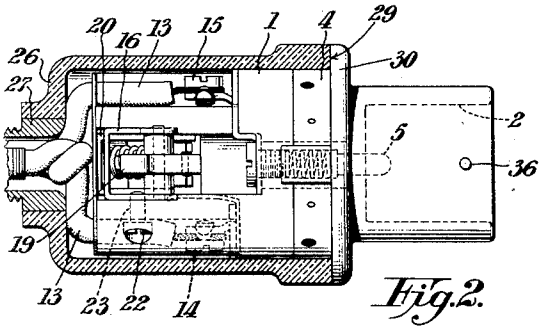

Fig.2.

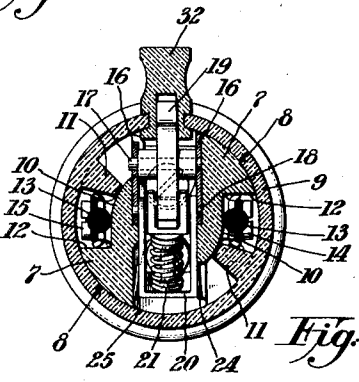

Fig.4.

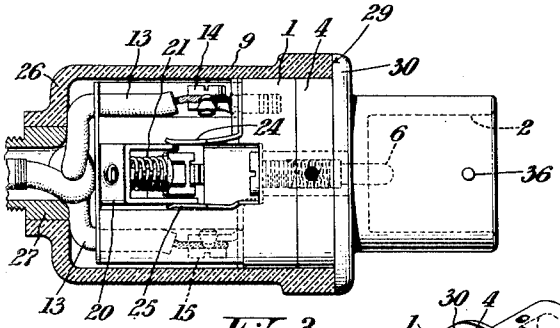

Fig.3.

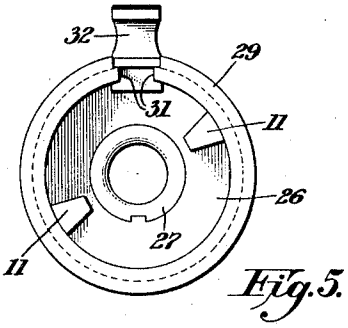

Fig.5.

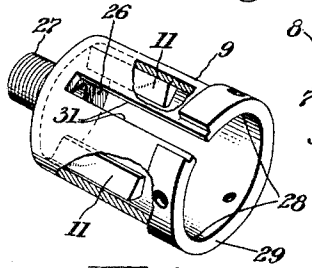

Fig.6.

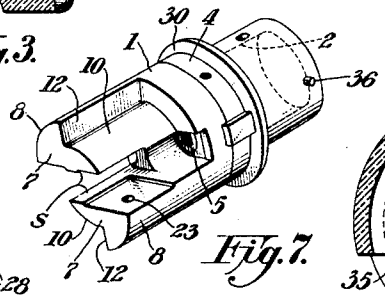

Fig.7.

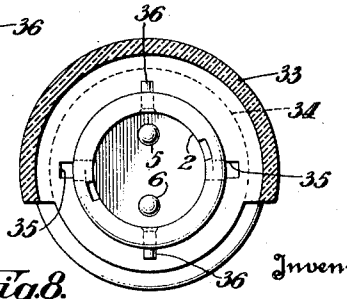

Fig.8.

Inventor

Kenneth Perkins

Witness:

By Henry J. Miller

Attorney

Patented Apr. 5, 1932 1,852,365

UNITED STATES PATENT OFFICE

KENNETH PERKINS, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY, OF ELIZABETH, NEW JERSEY, A CORPORATION OF NEW JERSEY

ELECTRIC LAMP SOCKET

Application filed June 25, 1930. Serial No. 463,592.

This invention relates to electric lamp-sockets and has for an object to provide a socket of simplified and improved construction which is inexpensive to manufacture.

The invention consists in the devices, combinations and arrangement of parts hereinafter described and claimed.

The several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art from the following detailed description of a preferred embodiment of the invention, taken in connection with the accompanying drawings in which Fig. 1 is a longitudinal section through a lamp-socket embodying the invention. Fig. 2 is a longitudinal section through the socket-shell, showing the socket-switch mechanism in elevation. Fig. 3 is a view similar to Fig. 2 looking from the reverse direction. Fig. 4 is a transverse section through the socket on the line 4—4, Fig. 1. Fig. 5 is an open-end view of the socket-shell. Fig. 6 is a perspective view of the socket-shell. Fig. 7 is a perspective view of the support for the socket-switch mechanism, and Fig. 8 is a section on the line 8—8, Fig. 1.

The socket illustrated comprises a support 1 molded in one piece from phenolic condensation material. The support 1 is cylindrical in form and is provided at one end with a cavity 2 for reception of the lamp-base 3. The support 1 is provided with a metallic ring insert 4 and spring-pin-terminal inserts 5, 6, which engage the filament terminals of the lamp-bulb. The support 1 is formed at the other end, or end opposite the cavity 2, with a slot *s*, Fig. 7, dividing it into two spaced projections 7 which have curved surface-portions 8 fitting snugly within the cylindrical shell-member 9. The projections 7 are formed with recesses 10 which receive the diametrically opposed ribs 11 formed within the shell-member 9. Spaces are provided between the ribs 11 and the adjacent side-wall portions 12 of the recesses 10 to receive and confine the lead-in wires 13 which are connected to the terminal screws 14, 15.

Mounted in the slot *s* between the projections 7, 7, is a toggle-switch mechanism of usual construction and including a stationary U-shaped metal supporting frame 16 in which are pivotally supported at 17 and 18 the operating lever 19 and movable contact-member 20. The usual spring-connection 21 is provided between the lever 19 and movable contact-member 20 to actuate the latter in opposite directions with a snap-action. The movable switch-levers and their supporting frame 16 constitute a unitary assembly which is secured in the slot *s* of the insulated support 1 by the screw 22, Fig. 2, which passes through the screw-aperture 23, Fig. 7.

The screw-terminal 15 is metallically connected to the spring-pin-terminal 5. The screw-terminal 14 is connected to the spring-leaf-contact 24. The spring-pin-terminal 6 is connected to another spring-leaf-contact 25. The movable contact-member 20 wipes between the leaf-spring-contacts 24 and 25 and electrically bridges the gap between them. The electric switch-mechanism and associated terminal elements 14, 15, are mounted wholly on the support 1 and there are no electrical parts mounted on the shell 9 which is simply an insulating enclosure for the electrical parts mounted on the support 1.

The shell-member 9 is molded from phenolic condensation material and has an end-wall 26 in which is a metal nipple insert 27 constituting an inlet for the wires 13. The skirt of the shell 9 has an opening 28 at the end opposite the end-wall 26. The opening 28 is the full size of the cylindrical supporting member 1 which latter is inserted through the opening 28 into the shell-member 9. When so inserted, the rim 29 of the shell 9 engages the transverse flange 30 on the support 1, which flange is disposed in a transverse plane between the lamp-base-receiving cavity 2 and the slot *s* and forms a finished closure for the open end of the shell-member.

The shell-member is formed with a longitudinal slot 31 for the slide-button 32 which engages the operating lever 19, as disclosed in my application, Serial No. 285,801, filed June 16, 1928, now Patent 1,805,048 dated May 12, 1931.

There may also be provided a one-piece molded shade 33 having at one end an integral ring-portion 34 which externally en-

gages the wall of the lamp-base receiving cavity 2. The ring-portion 34 is formed with the inner longitudinal slots 35 which permit detachment of the shade from the socket when the shade is turned to register the slots 35 with the retaining pins 36 on the lamp-base-receiving end of the support 1.

The socket comprises but two major portions, to wit: the shell 9 and the part 1 which is inserted in the shell 9. The flange 30 on the part 1 caps or closes the open end of the shell 9 and renders the use of a separate cap member unnecessary.

Having thus set forth the nature of the invention, what I claim herein is:

1. An electric lamp-socket comprising a cylindrical socket-shell formed of insulating material and having internally disposed ribs extending lengthwise of said shell, and socket-switch mechanism including a support of insulating material having portions fitting the inner cylindrical wall of said shell and recesses receiving said ribs, there being spaces between said ribs and the adjacent side wall portions of the recesses in said support to receive and confine the lead-in wires.

2. An electric lamp-socket comprising a one-piece molded support formed at one end with a lamp-base receiving cavity, an electric switch and associated terminal elements mounted wholly on the other end of said support, said support having a flange between its ends, and a molded socket-shell having a cylindrical skirt adapted to receive and enclose said other end of the said support together with the switch parts thereon, said shell having a circuit inlet at one end and a rim at the other end in engagement with said flange.

3. An electric lamp-socket comprising a cylindrical support of molded insulating material formed at one end with a lamp-base-receiving cavity and at its opposite end with a slot dividing it into spaced insulating projections, said projections having recesses in their outer surface portions for insulating the lead-in wires, switch-mechanism mounted on said support and including a movable contact element mounted in said slot between said projections, and a cylindrical socket-shell of molded material enveloping said insulating projections and switch-mechanism.

In testimony whereof I have signed my name to this specification.

KENNETH PERKINS.