

[54] **SOCKET**
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 [73] Assignee: **Microdot Inc., Birmingham, Mich.**
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[52] **U.S. Cl.** **339/88 R, 339/188 R, 339/206 L, 339/217 S**
 [51] **Int. Cl.**..... **H01r 13/54, H01r 33/46**
 [58] **Field of Search** **339/17 D, 59 L, 61 L, 339/125-128, 157 C, 176 L, 180, 188, 189, 206 L, 207-209, 217 S, 248, 256 SP, 258, 252 R, 88**

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[57] **ABSTRACT**

Socket bodies of various shapes are molded with a smooth or contoured bore in the former of which a plastic tubular liner is secured to provide the same interior contour for supporting snap-in contacts. The contact has an S-shaped leaf type of terminal secured to one end of a rectangular body portion which has locking tongues thereon. The opposite end of the contact is extended and engaged by conductors of a harness or has conductors fixedly attached thereto. The liner, when used, simplifies the mold for the various socket bodies and provides a standard element for supporting the terminals therewithin.

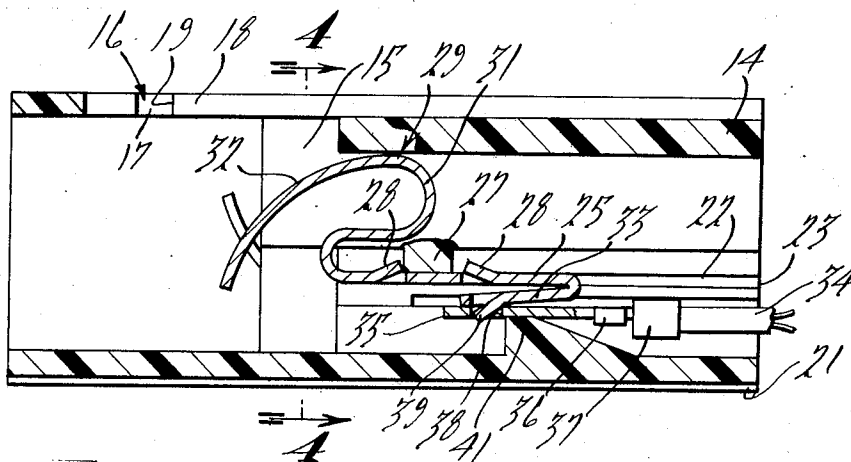
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8 Claims, 6 Drawing Figures



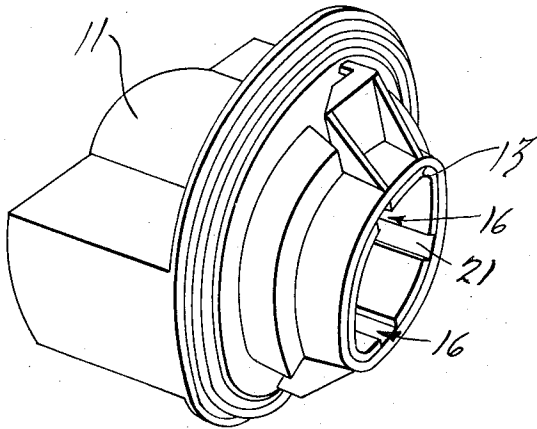


FIG. 1.

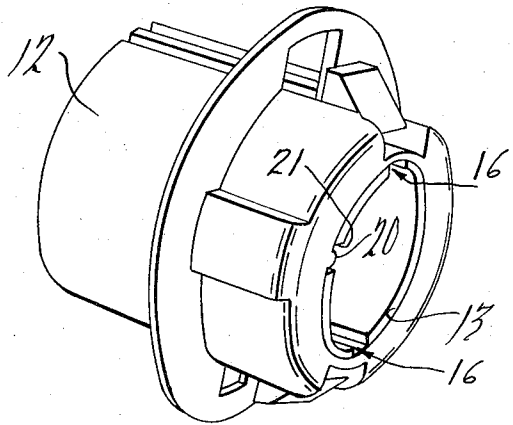


FIG. 2.

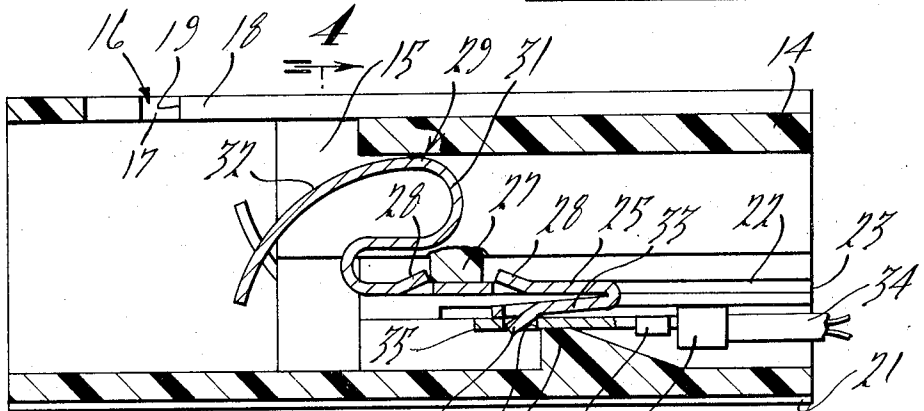


FIG. 3.

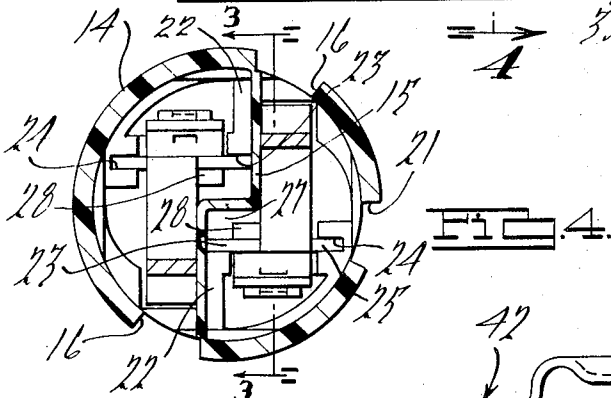


FIG. 4.

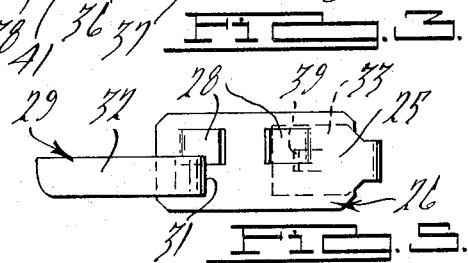


FIG. 5.

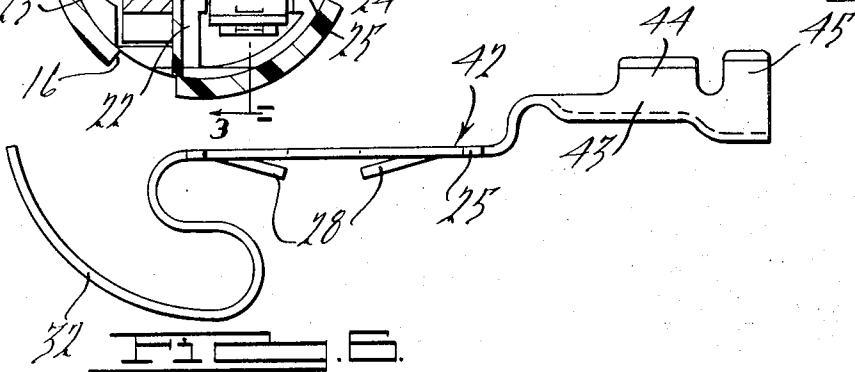


FIG. 6.

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SOCKET

SUMMARY OF THE INVENTION

The invention pertains to a snap-in contact to be supported within a molded cylindrical sleeve through the insertion of the contacts therein from either end. The sleeve has an offset partition provided with slots aligned with slots in the walls in which the terminal supporting body slides to a position where a pair of struck-out tongues are located on opposite sides of a projecting bar. The projecting end of the body may have a conductor secured thereto by formed fingers which are clamped over the wire and the insulating sheath thereof. The end may be reversely bent and provided with a struckout tongue which will project into an aperture in the end of a terminal attached to a conductor. After this terminal has been anchored within the aperture from either end thereof, the contact on the end of the conductor may then be inserted from the rear end into locked position therewith to complete a circuit.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a body showing one form thereof with the tubular sleeve and contacts of the present invention employed therewithin;

FIG. 2 is a perspective view of a body which is different from that illustrated in FIG. 1 but having the sleeves and contacts of the present invention mounted therewithin;

FIG. 3 is an enlarged sectional view of the structure illustrated in FIG. 5, taken on the line 3—3 thereof;

FIG. 4 is a sectional view of the structure illustrated in FIG. 3, taken on the line 4—4 thereof;

FIG. 5 is a plan view of the terminal unit illustrated in FIG. 1, and

FIG. 6 is a view in elevation of a terminal similar to that illustrated in FIG. 3, showing another form thereof.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Socket bodies 11 and 12, as illustrated in FIGS. 1 and 2, are molded from a plastic material to a predetermined shape to function in a receptacle or panel in which they are supported. When these socket bodies were molded of a plastic material, a smooth cylindrical aperture 13 of the same diameter was provided therein. Any type of molded socket body for supporting a light bulb may be molded with a smooth central bore as shown in the bodies 11 and 12. By providing the smooth bore within the socket bodies the molds for the bodies are substantially simplified and a standard sleeve 14 is separately molded and secured within the smooth bore of the bodies to simplify the mass production of sockets of different types. When not mass produced, the interior of the socket may be molded the same as the interior of the sleeve 14.

The sleeve 14 has a central offset partition 15 and a pair of oppositely disposed J-slots 16 for securing a lamp bulb within the sleeve. Each of the J-slots has a slot 17 at the end of the sleeve which communicates laterally with an offset slot 18 and provides the offset lock with the slot 17. An opening 19 between the slots permits the nibs on the bulb to pass from the slot 17 into the slot 18 where it is locked against outward movement. Between the spaced slots 18 a slot 21 is pro-

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vided for engaging a projection 20 within the smooth bore of the socket bodies which orients the sleeve therewithin. By having the slot 21 extend from both ends of the sleeve, the sleeve may be mounted within the socket body from either end thereof.

The offset partition 15 has the opposite sides thickened at 22 to provide slots 23 which are aligned with slots 24 on the inner walls of the sleeve 14. Each pair of slots 23 and 24 support a rectangular body portion 25 of a terminal unit 26 which may be slid into position from either end of the sleeve. Adjacent to the slots a stop block 27 is provided on either side of which a struck-out tongue 28 on the body portion 25 prevents the terminal unit from shifting any substantial amount within the slots 23 and 24.

It will be noted from FIGS. 4 and 5 that an S-shaped terminal 29 extends from one end of the rectangular body portion 25 closely adjacent to one edge thereof. The tongues 28 are offset laterally in the opposite direction from the center of the body portion 25. The terminal 29 has a contact portion 32 extending therefrom in cantilever. The arcuate portions 31 of the S-shaped terminal are free to deflect relative to the end of the rectangular body portion 25 when the contacts of the lamp bulb are moved thereagainst when advanced within the end of the sleeve 14. The offset partition 15 provides two cavities within the sleeve 14, one facing in one direction along the partition the other facing in the opposite direction. As a result, when the terminal units 26 are mounted in the cavities the terminal portions 32 will extend in opposite directions.

The terminal element 29 shown mounted within the sleeve 14 in FIG. 3 has an end section 33 reversely bent to extend forwardly in V-relation to the body portion 25. A conductor 34 is secured to a terminal 35 by the usual clamping fingers 36 and 37. The terminal 35 has an aperture 38 therethrough engaged by a struck-out tongue 39 in the reversely bent portion 33. The terminal 35 rests upon a molded extension 41 within the sleeve to maintain the engaged relation with the reversely bent portion 33. The terminal element 29 may be mounted in the sleeve 14 from either end thereof as the stop block 27 permits the contact portion 32 to pass thereby while in position to be engaged by the tongues 28.

A terminal element 42 is illustrated in FIG. 6, which is of the same construction as the terminal element 29 of FIG. 3, with the exception that the rear of the rectangular body portion 25 is extended at 43. Spaced pairs of fingers 44 and 45 are provided on the extension 43 which function as the fingers 36 and 37 for securing the wire and insulation of a conductor 34 directly onto the terminal element 42. The rectangular body portion and terminal end may be inserted from either end of the socket bodies 11 or 12 in the same manner as pointed out above with regards to the structure of FIG. 3.

I claim:

1. In a socket, a socket body in which a lamp bulb is supported, a pair of conducting elements each having a rectangular body portion, an S-shaped terminal portion extending from a position adjacent to one side edge of said rectangular body portion, and struck-out tongues located adjacent to the side opposite to that from which said terminal portion extends, said socket body having two passageways therethrough, each having a stop block by which the terminal portions pass when the pair of conducting elements are inserted from

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either end of the socket body to a position where the tongues engage opposite sides of the stop blocks said terminal portion and said struck-out tongues of each conducting element being laterally offset relative to each other when viewed in a direction parallel to the axis of said socket body.

2. A socket as recited in claim 1 including a cylindrical sleeve of insulating material having a central partition and with slots therein for the acceptance of the edges of the rectangular body portion, said socket having a central aperture in which said sleeve is supported.

3. A socket as recited in claim 2, wherein said stop blocks are truncated and provided on each side of the partition to be engaged by the tongues when one of the tongues is advanced therebeyond.

4. A socket as recited in claim 3, wherein said S-shaped terminal slides by the end of the stop blocks when the conducting elements are inserted in said passageways.

5. A socket as recited in claim 2, wherein a slot is provided on the outside of the sleeve and wherein a projection is provided within the bore of the socket for orienting the sleeve when mounted therewithin.

6. A socket as recited in claim 5, wherein oppositely disposed J-slots are provided in the socket for locking the lamp bulb within the end with its contacts engaged with the contact ends of said S-shaped terminal portions.

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7. In a socket for a light bulb, a socket body of substantially any desired configuration having a central smooth bore with a projection extending therewithin, a sleeve having a longitudinally disposed slot in the outer wall which slides over said projection when being inserted within the bore for orienting the sleeve relative thereto, an offset partition in the center of said sleeve forming offset passageways having slots aligned with slots in the inner wall of said sleeve, said partition further having a pair of stop blocks on opposite sides thereof, a pair of terminal units each having a rectangular body portion slidable in said slots, a tongue adjacent to one side edge of said rectangular body portion and extending therefrom for engagement with one of said stop blocks, and a terminal portion extending from one end of the rectangular body portion, said terminal portion joining said rectangular body portion adjacent to the side edge thereof opposite to that having said tongue, said terminal units being secured within the passageway such that the terminal portion and tongue of each unit are laterally offset relative to each other when viewed in a direction parallel to the axis of said socket body.

8. In a socket as recited in claim 7, wherein conducting means complete a circuit to the end of the rectangular body portion opposite to that from which the terminal extends.

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