United States Patent [19]

Howe

[11] **3,781,768**

[45] **Dec. 25, 1973**

[54] **LAMPHOLDER**

[75] Inventor: **John Arthur Howe**, Chilwell, England

[73] Assignee: **TRW Inc.**, Cleveland, Ohio

[22] Filed: **June 30, 1972**

[21] Appl. No.: **267,763**

Related U.S. Application Data

[63] Continuation of Ser. No. 44,449, June 8, 1970.

[52] **U.S. Cl.**..... **339/125 L**, 339/91 L, 339/176 L

[51] **Int. Cl.**..... **H01r 13/54**

[58] **Field of Search**..... 339/17 D, 59, 75 T, 339/91, 119, 125, 126, 128, 144, 145, 176

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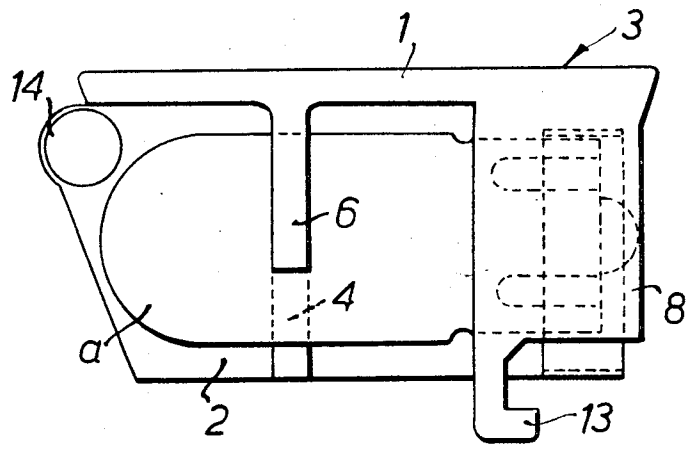
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Primary Examiner—Richard E. Moore
Attorney—Gordon Needleman

[57] **ABSTRACT**

A lampholder for capless or wedge base type lamps copmrises a body of resilient or semi-resilient plastics shaped to provide a first recess for accommodating the glass envelope of a lamp and a second recess for accommodating the base thereof, both said recesses opening on to one side of the holder to enable the lamp to be inserted by a lateral movement.

3 Claims, 8 Drawing Figures



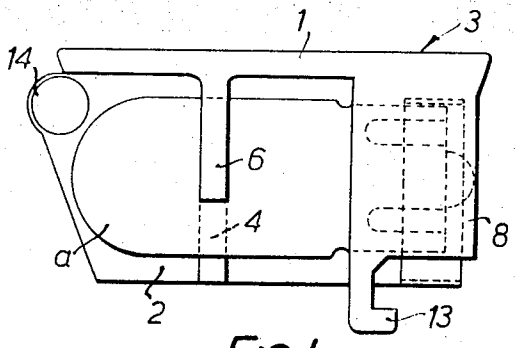


FIG. 1.

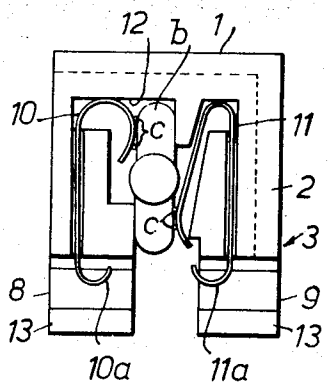


FIG. 4.

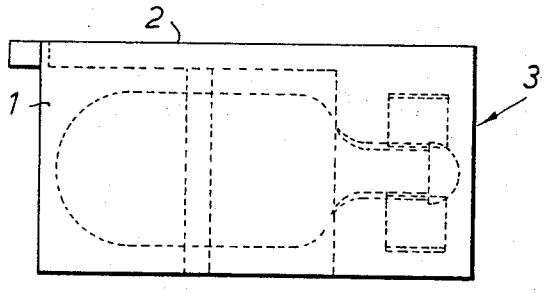


FIG. 2.

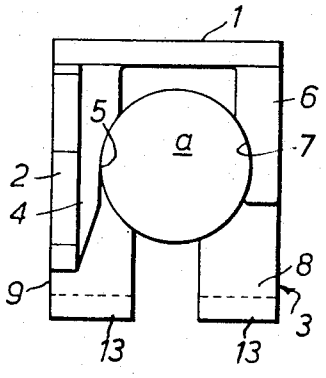


FIG. 5.

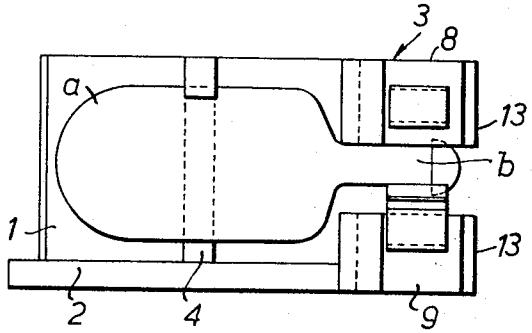


FIG. 3.

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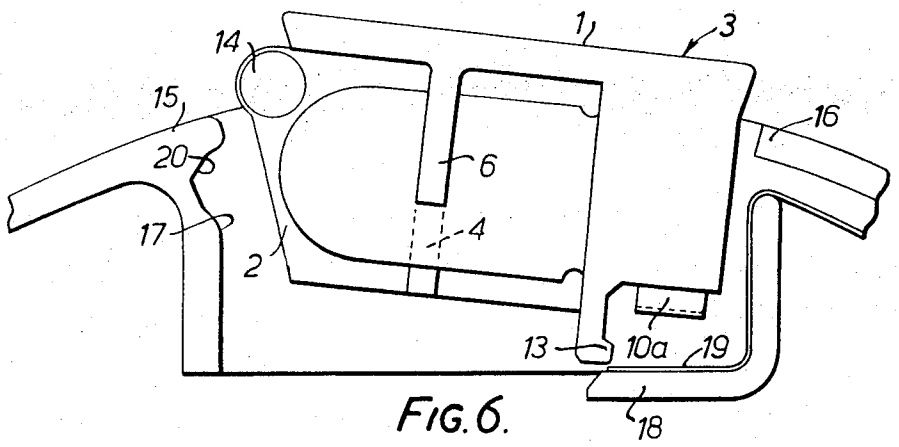


FIG. 6.

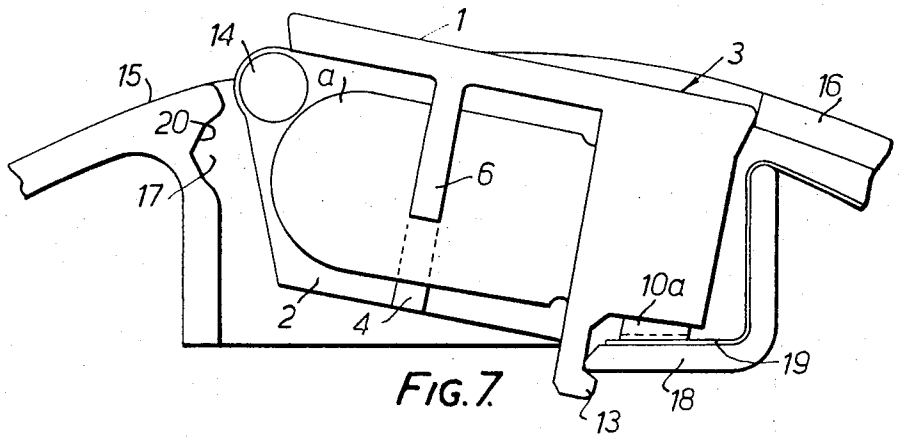


FIG. 7.

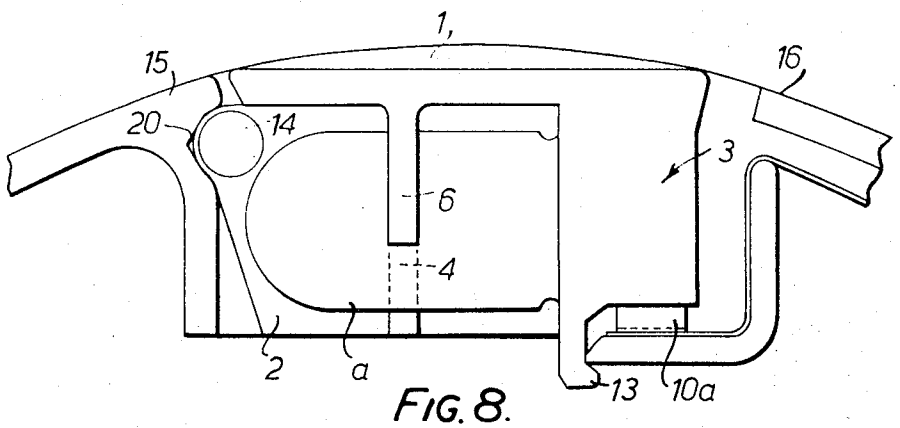


FIG. 8.

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LAMPHOLDER

This is a continuation, of application Ser. No. 44,449 filed June 8, 1970.

This invention relates to a holder for an electrical lamp of the kind comprising a glass base formed integrally with the glass envelope, the base being of rectangular shape in cross-section having contacts located on oppositely disposed faces. Such a lamp is commonly known as a capless or wedge base type lamp and is hereinafter designated by the expression "a lamp of the kind referred to".

The present invention provides a holder formed of resilient or semi-resilient plastics for a lamp of the kind referred to, wherein a portion of the holder is shaped to define a first recess for accommodating the glass envelope of a lamp and another portion is shaped to define a second recess for accommodating the lamp base, both said recesses opening on to the same side of the holder to enable the lamp to be inserted by a lateral movement to dispose the glass envelope in the first recess and the lamp base in the second recess with the contacts on the lamp base engaging contacts mounted in said second recess, a resilient arm being associated with the first recess for resiliently gripping the glass envelope of the lamp when the latter is assembled with the holder.

To enable the invention to be fully understood, it will now be described, by way of example, with reference to the accompanying drawings in which:

FIG. 1 is a side elevation of the lampholder according to one embodiment of the invention with a wedge base lamp assembled therein;

FIG. 2 is a plan view of the holder illustrated in FIG. 1;

FIG. 3 is an under plan view;

FIG. 4 is an end view taken from the right of FIG. 1;

FIG. 5 is an end view taken from the left of FIG. 1; and

FIGS. 6 to 8 illustrate the steps in inserting the holder into an instrument housing or other support.

An example of a capless or wedge base type lamp is illustrated in the drawings from which it will be noted that the lamp includes a substantially cylindrical glass envelope *a* and an integral base *b* of rectangular shape in cross-section, contacts connected with the filaments in the envelope *a* being in the form of wires *c* extending along opposite side faces of the base *b*.

As shown, the lampholder is a one-piece moulding of resilient or semi-resilient synthetic plastics comprising a substantially flat plate-like base **1** and a side wall **2** extending at right angles thereto. The base has an integral end portion **3** in which the base *b* of the lamp is adapted to be received.

The side wall **2** is formed with an integral rib **4** formed with an arcuate recess **5** corresponding to the curvature of the glass envelope of the lamp to be assembled in the holder. A second arm **6** depends from the base **1** in substantially parallel spaced relation to the rib **4** and is also formed with an arcuate shaped recess **7** corresponding to the curvature of the glass envelope of the lamp. The arm **6** is resilient and is adapted to engage the glass envelope of the lamp. The end portion **3** of the holder is bifurcated and includes two laterally spaced parts defining a central recess or slot **8, 9,** each part **8, 9,** being formed with a slot in which is located a resilient contact **10, 11,** respectively.

The holder accordingly provides a first recess defined by the base **1,** wall **2** and arm **6,** and a second recess or slot **12** defined by the parts **8, 9,** of the end portion **3.** Both these recesses open on to the same side of the holder so that the lamp is capable of insertion by a lateral movement so that the glass envelope is disposed in the first recess wherein it will be resiliently gripped between the arms **4** and **6** and the base of the lamp will be disposed in the recess **12** in the end portions wherein portions of the contacts **10** and **11** which extend into the lamp base receiving slot will engage the wire contacts *c* on the lamp base. When the lamp is thus inserted, the opposed portions of the glass envelope will be received in the arcuate shaped recesses **5** and **7** of the arms **4** and **6** and the envelope will be resiliently supported.

To enable the holder to be assembled in an opening in an instrument housing or like support, each of the parts **8** and **9** of the end portion of the body is formed with a hook shaped portion **13** and the outer end of the base **1** is formed with a projection in the form of a hollow boss **14.**

The method of assembly into an instrument housing is illustrated in FIGS. **6** to **8,** wherein the housing is shown as comprising wall portions **15** and **16** defining an opening **17.** The housing also includes an inwardly extending lug **18** on which a flexible electrical conductor or circuit element **19** is positioned.

The first step in assembly is illustrated in FIG. **6** and comprises inserting the holder with the assembled lamp into the opening **17** at a slight angle, the holder then being moved inwardly of the opening **17** until the hooks **13** snap over the end of the lug **18** as clearly shown in FIG. **7.**

The holder is then tilted to enter the opposite end of the body into the opening during which operation the hollow boss **14** engages and snaps past the edge of the adjacent wall **15** of the housing and is finally nested in the recess **20.**

It will be noted that when the holder is assembled in the instrument housing, the curled end **10***a*, **11***a*, of the contacts **10, 11,** which extend outwardly of the open end of the slot resiliently engages the flexible conductor or circuit element **19.**

If desired, instead of providing arms **4** and **6** integral with the body of the holder, a separately formed clip, for example, made of metal could be provided and mounted in the said second recess.

Such a clip would include a portion overlying the inner face of the wall portion **2** and a resilient arm disposed in opposed relation and in approximately the position of the arm **6** illustrated in the drawings. When the lamp is in assembly, opposed portions of the glass envelope will be engaged by the said portion and arm of the clip. This separately formed clip would be used where there was a danger that the heat generated by the lamp when switched on might tend to cause the plastics material to soften or melt.

I claim:

1. An assembly comprising a resilient plastic lampholder and a wedge base lamp, said lamp having a filament encasing envelope, a rectangularly shaped base and leads connected to the filament disposed on opposite side faces of said base, said holder including a base, a side wall extending from one edge of said base, said side wall having a rib disposed thereon, an arm extending from another edge of said base, said arm being dis-

posed opposite said rib, and a bifurcated end portion joined to said base and providing laterally spaced parts defining a lamp base receiving slot, each of said spaced parts having a slot formed therein and each of said last mentioned slots having a resilient contact disposed therein, said lamp envelope being disposed in said holder and releasably gripped by said rib and said resilient arm and said lamp base being disposed in said slot defined by said parts of said bifurcated end portion such that each of said contacts is in engagement with one of said filament leads.

2. An assembly according to claim 1 wherein the opposed facing surfaces of said rib and said resilient arm are concave to provide cooperating recesses in which said envelope is releasably seated.

3. An assembly according to claim 1 wherein said holder includes integral fastening means for releasably seating said holder in an opening in a support for said assembly.

* * * * *

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,781,768 Dated December 25, 1973

Inventor(s) John Arthur Howe

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

On the cover sheet insert

-- [30] Foreign Application Priority Data

Great Britain 29859 June 12, 1969 --.

Item [57] ABSTRACT, line 2, "copmrises" should read

-- comprises --.

Signed and sealed this 24th day of September 1974.

(SEAL)
Attest:

McCOY M. GIBSON JR.
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents

FORM PO-1050 (10-69)

USCOMM-DC 60376-P69
U.S. GOVERNMENT PRINTING OFFICE : 869-930