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SUPPORT FOR LIGHT DIFFUSERS.

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Description

This invention relates to a support for light diffusers.

Lighting appliances are known comprising a support consisting of a rigid frame for suspending from the ceiling, for fixing to a wall, or for resting on a base on the floor, and provided at one end with a light diffuser.

The electrical connection between the diffuser and the electricity mains is made by an electric cable which in some case is passed through the inside of the support (with a considerable time required for its insertion) and in other case is arranged external to the support (to the detriment of the appearance of the appliance).

DE-U-87 121 441 describes a support for light diffusers comprising two glass plates on which at least two conducting tracks are applied, the conducting tracks extending through the whole area of the plates being covered by a layer of insulating material.

These diffusers can operate only at low voltage since the conducting wires reach the side cut sections.

Therefore the lighting capacity is limited to the largest power of the low voltage and furthermore the diffusers requires two distinct supports since the inner net cannot be divided.

These drawbacks are overcome by a light diffuser support as claimed in claim 1.

The present invention is further clarified hereinafter with reference to the accompanying drawings, in which:

Figure 1 is an interrupted perspective view of a support according to the invention; and

Figure 2 shows it applied to a lighting appliance.

As can be seen from the figures, the support according to the invention comprises substantially two plates of translucent glass 1, 1', on the inside of which there are provided two tracks 2 of conducting paste, for example based on silver. The ends of the two conducting tracks 2 are connected to the electrical contacts of the light diffuser 3 and to the electrical mains contacts respectively.

The support according to the invention is prepared in the following manner:

two rectangular preferably translucent glass plates are taken and their edges ground. Two tracks of conducting paste, preferably silver based, are then applied along one of the two glass plates by means of a silk-screen frame, after which the plate is dried to solidify the paste.

The plates are then tempered to improve their mechanical characteristics and to bake the paste of the conducting tracks, which thus become fixed to the supports.

After this tempering stage a layer of PVB (polyvinyl butyral) is applied between the two plates, which are then placed together under vacuum so that they become irreversibly joined. The plates prepared in this manner are connected to the diffuser conductors and to the mains leads.

Instead of being glued together with PVB, the plates can be glued with a conventional glue or joined by bolts.

From the foregoing it is clear that the support according to the invention has numerous advantages, including:

- a pleasing appearance because of the elimination of any exposed conductor,
- the fact of acting as a light diffuser, conductor and insulator at the same time, ie functions which were previously performed by separate parts.

Claims

1. A support for light diffusers (3), characterised by comprising two opposite glass plates (1, 1'), on one of them at least two separated conducting tracks (2) being applied by a silk-screen frame, said tracks (2) extending along the complete length of the plate and being connected at their ends respectively to electric mains and to diffuser conductors, said two plates (1, 1') being coupled each other through the surface on which the conducting tracks (2) are applied, a layer of insulating material being interposed between the facing surfaces of said plates.

2. A support as claimed in claim 1, characterised in that said layer of insulating material is of polyvinyl butyral.

3. A support as claimed in claim 1, characterised in that the glass plates are formed of diaphanous material.

4. A support as claimed in claim 1, characterised in that the glass plates are formed of translucent material.

5. A support as claimed in claim 2, characterised in that the layer of polyvinyl butyral is used as adhesive.

Patentansprüche

1. Ständer für Lichtdiffusoren (3), gekennzeichnet durch zwei gegenüberliegende Glasplatten (1, 1'), wobei auf einer von ihnen wenigstens zwei getrennte Leiterbahnen (2) mit einem Siebdruckrahmen aufgebracht sind, welche besagten Leiterbahnen (2) sich über die gesamte Länge der Platte erstrecken und an ihren Enden jeweils an elektrische Hauptleitungen angeschlossen sind, wobei die besagten beiden Platten (1, 1') miteinander durch die Fläche verbunden sind, auf der die Leiterbahnen (2) aufgebracht sind, wobei eine Isoliermaterial-Schicht zwischen den einander zugewandten Oberflächen der besagten Platten angeordnet ist.
2. Ständer nach Anspruch 1, dadurch gekennzeichnet, daß die Isoliermaterial-Schicht aus Polyvinylbutyral ist.
3. Ständer nach Anspruch 1, dadurch gekennzeichnet, daß die Glasplatten aus durchscheinendem Material bestehen.
4. Ständer nach Anspruch 1, dadurch gekennzeichnet, daß die Glasplatten aus durchsichtigem Material bestehen.
5. Ständer nach Anspruch 2, dadurch gekennzeichnet, daß die Polyvinylbutyral-Schicht als Klebstoff verwendet wird.

Revendications

1. Support pour diffuseurs de lumière (3) caractérisé en ce qu'il comprend deux plaques de verre opposées (1, 1') dont au moins l'une d'entre elles présente deux pistes conductrices séparées (2) appliquées par un réseau à tamis de soie, lesdites pistes (2) s'étendant sur toute la longueur de la plaque et étant connectées à leurs extrémités respectivement à l'alimentation de courant électrique et au conducteur du diffuseur, lesdites deux plaques (1, 1') étant connectées l'une à l'autre par la surface sur laquelle sont appliquées les pistes conductrices (2), une couche de matériau isolant étant interposée entre les faces desdites plaques tournées l'une vers l'autre.
2. Support selon la revendication 1, caractérisé en ce que ladite couche de matériau isolant est du polyvinyl-butylal.
3. Support selon la revendication 1, caractérisé en ce que les plaques de verre sont constituées d'un matériau diaphane.
4. Support selon la revendication 1, caractérisé en ce que les plaques de verre sont constituées d'un matériau translucide.
5. Support selon la revendication 2, caractérisé en ce que la couche de polyvinyl -butylal est utilisée comme adhésif.

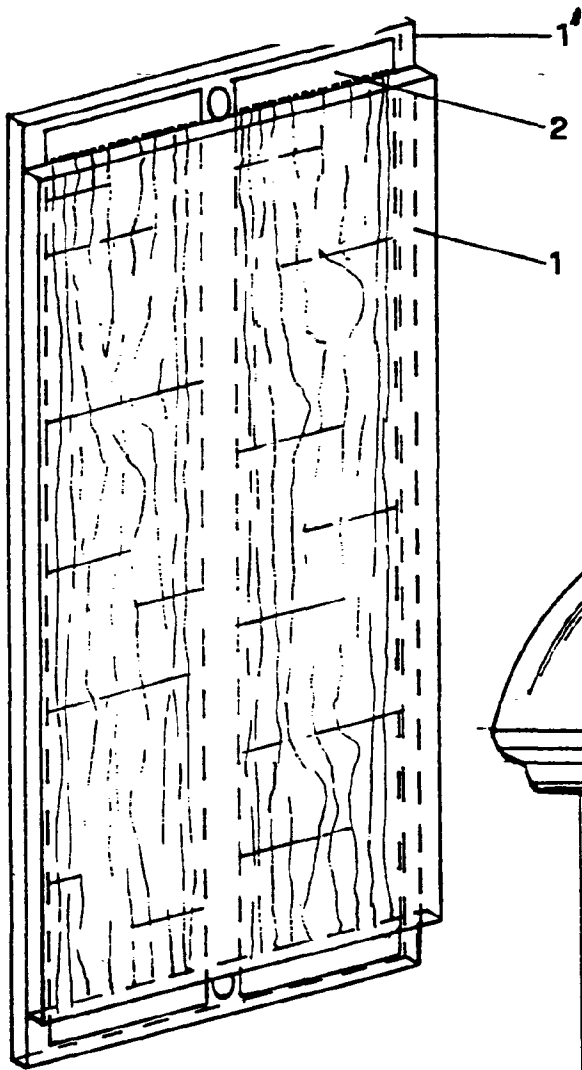


FIG.1

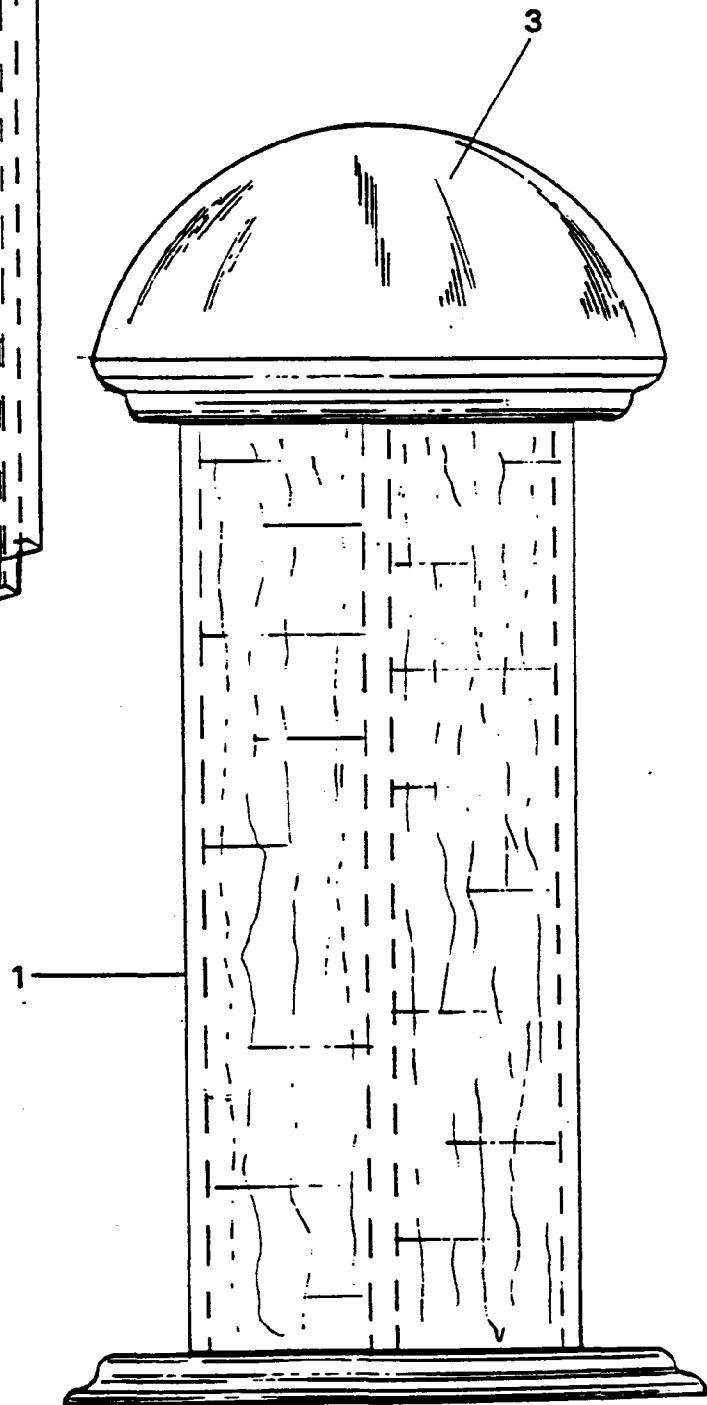


FIG.2