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(73) Proprietor: **Haglund & Söner Aktiebolag
Box 44
S-521 01 Falköping (SE)**

(72) Inventor: **Ohlsson, Leif
Slalomvägen 43
S-541 33 Skövde (SE)**

(74) Representative: **Rosenquist, Holger et al,
H Albihs Patentbyrå AB Box 7664
S-103 94 Stockholm (SE)**

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Roller blind holder

The present invention relates to a plastic roller blind holder having improved properties and a more aesthetically appealing appearance than previous constructions.

Roller blind rods are equipped at one end with a round stud, a knob, for free rotation in a roller blind holder and at the other end with a rectangular stud, a spindle, for fixation in a corresponding square hole in a second holder. The rectangular spindle stud is connected to a spring inside the roller blind rod so that the spring is drawn when the roller blind is pulled down, said roller blind rolling itself up when a locking mechanism is released. The locking mechanism for the spring is fixedly attached to the spindle and consists of a ratchet which falls into its locking position by means of gravitational pull. In order that the ratchet shall be able to function, the rectangular spindle stud must assume a certain vertical position and, thus, one must have different holders if attachment is to take place in ceilings or walls with the holes turned 90° relative each other.

It can also be necessary to arrange a roller blind at different distances from walls or ceilings depending on the rod dimension, fabric thickness, fabric length or if the wall is smooth or has projecting mouldings so that the bottom fillet of the roller blind can be used as a stop in the upper position and prevent excess rolling. One must then use holders of differing lengths.

The common roller blind holder consists of an angularly bent metal strip, one angular leg of which is provided with a hole or slot for attachment of the roller blind rod and the other angular leg of which is provided with holes for mounting with screws or nails. Roller blind holders are normally made out of metal sheet in which one or more stiffening folds are made in order to increase stability and rigidity. Many attempts have been made to improve the metal holders and make them less aesthetically disturbing as well as to cheapen production. For example, they have been made in two-piece constructions in order to be able to move the parts relative each other and thereby move the blind closer to or further away from the wall. Locking in the correct position has been arranged by means of a screw. Furthermore, holders having both round holes and square slots have been made in order to only need one kind of holder when it has not been possible to have the roller blind rod in the middle of the holder. Attempts have also been made to include a plastic bearing for the knobs in order to expediate rotation, etc.

The present invention relates to a roller blind holder made entirely out of plastic and manufactured by means of injection casting in one operation. Said holder has a considerably more appealing appearance than the previous metal

holders and, due to the selection of material, is more sound-absorbing and durable.

It is known from DE—A—2 810 936 to form a roller blind holder of injection moulded plastics, the holder having a box-shaped construction with reinforcing corner ribs. A U-shaped locking member is provided to hold the knob end of the roller blind rod in place.

It is the object of the invention to provide a simplified plastics holder with a locking part which is secured in a more reliable manner and which reduces wear caused by the knob end of the roller blind rod. This object is achieved by the characterising features of claim 1.

The invention shall be described in more detail below with reference made to the accompanying drawings which provide perspective views in which Figure 1 is a roller blind holder according to the invention for the spindle side of the blind rod, Figure 2 is a holder according to the invention for the knob side of the blind rod, Figure 3 is the holder according to Figure 1 as seen from above, Figure 4 is a locking plug according to the invention and Figure 5 is the roller blind holder according to Figure 2 with attached locking plug.

The roller blind holder consists of a box-shaped housing 1, 1a, the bottom of which is provided with two feet 2 having holes 3, 3a for normal mounting with screws or nails. In order to reinforce the construction, the front side and back side are extended so as to form ribs 4 in the corners. An aperture 5 is arranged in the front side of the housing and corresponds to two screw holes 6 through the back side so as to make attachment to a niche or wall corner possible. The base 7 of the housing is raised above the bottom surface of the feet and provided with a central screw hole 9 preferably intended for attachment to wall fittings or rods. An intermediate bottom 10 having an aperture 11 for a locking plug 12 is arranged above the aperture 5 in the front wall as a reinforcement. Said aperture 11 also makes it possible to insert a screw into the bottom hole 9. The intermediate bottom is braced by two triangular parts 13, cf. Figure 3, and, finally, the front and back sides are thickened 14. The holders 1 and 1a for the two sides of the roller blind rod correspond in the above-mentioned details and only differ in the design of their front sides.

Two cross-shaped holes 16 are arranged on the front side 15 of the holder 1 which shall carry the rectangular spindle on the roller blind rod, in which holes the spindle can be fixed in the vertical or horizontal position depending on if the holder is attached to a vertical wall or a horizontal ceiling. The simple locking mechanism in the roller blind rod can thereby always be made to function. The different distances of the holes 16 from the bottom surface of the feet provide sufficiently large

selection possibilities for normally required distances from the wall and ceiling surface as mentioned above for different rod dimensions, fabric thicknesses and fabric lengths. By means of said possibility of variation, the bottom fillet of the roller blind can always be used as a stop in the upper position and thereby prevent excess rolling without having to use underlays beneath the holders or special stops for the bottom fillet as is now common in difficult cases. The front side 17 of the holder 1a for the knob end of the roller blind rod has two horizontal slots 18 which are inwardly terminated by a semi-circular bottom whose centers are aligned with the middle line of the holder. The other ends of the slots terminate in an upwardly open vertical slot 19 through which the knob of the rod can be inserted in the desired slot 18. The knob is then locked into its position by means of the locking plug 12. Said plug, which is shown in Figure 4, consists of a handle part 21 having the same length and width as the upper end of the holder and serves to seal the holder in an aesthetic manner. The locking plug has two shanks 22 which are pointed at their ends and provided with stops 23 for engagement and locking in the aperture 11 in the intermediate bottom 10. In their attachment in the handle part, the shanks are also provided with reinforcements 24 which are pointed so that insertion shall be expedited.

When mounting the roller blind in the holders, the spindle is first inserted with its rectangular cross section vertically in the cross-shaped hole which fits the blind. The knob is thereafter inserted into the corresponding slot 18 in the second holder and locking takes place by means of insertion of the locking plugs.

In the most common form of assembly, wall mounting, the knob will rest partly against the bottom edge of the slot 18, and partly against the inside of the locking plug shank 22, whereby wear on the edge of the hole is reduced. The holes in a metal holder are worn rather quickly, but even if the plastic material, normally Delrin®, has better resistance to wear due to its lower friction coefficient, a further improvement is still of value. Should the plug be worn so much that play arises, it can easily be exchanged for a new one. The locking plugs for the two holders are identical and both sides of the blind obtain the same appearance and a considerably more pleasant appearance than previously used metal holders have to offer.

The roller blind holders according to the present invention are designed to fit into a larger system with combined mounting of roller blinds, draw-curtains, curtain fringes and the like. In this manner, the entire blind mounting with roller blind attachment, sliding rods for normal curtains, etc. is achieved by means of one single construction. Such a construction can be made without any projecting parts or edges which can catch onto and damage fragile curtains. By means of the box-like construction

of the roller blind holders, both the spindle and the rotating knob will be surrounded and protected from contact. In previous roller blind holders, it has been quite common that the curtains and blinds have caught in the blind holders and been torn during mounting, pulling or fluttering.

Claims

1. Plastic roller blind holder for wall, ceiling, bottom, niche or wall fitting mounting, comprising a box-shaped holder part (1, 1a) reinforced by corner ribs (4) and a locking part (12) receivable on said holder part and having two shanks (22), characterised in that the locking part is in the form of a plug (12) and that the holder part has an intermediate bottom (10), said intermediate bottom (10) having a central opening (11) for receiving and locking the shanks (22) of the locking plug inserted through an open end of said holder part.

2. Holder according to claim 1, characterized in that the holder part (1) for the spindle end of the roller blind has two cross-shaped holes (16) on the front side (15) for fixation of the rectangular spindle in the vertical position.

3. Holder according to claim 1, characterized in that the front side (17) of the holder part (1a) for the knob of the roller blind has two slots (18) corresponding to the two cross-shaped holes (16) in the first holder part (1) with an open-ended connecting slot (19) for the insertion of the blind knob.

4. Holder according to claims 1—3, characterized in that the shanks (22) of the locking plugs (12) are arranged to rest against the spindle and knob, respectively, so as to absorb friction and wear.

5. Holder according to any one of the preceding claims, characterized in that the front and rear walls are reinforced by means of thickening (14).

6. The use of the roller blind holder according to the preceding claims in a system for mounting roller blinds and slide rods for normal curtains as a single construction.

Revendications

1. Support en matière plastique pour store à rouleau, destiné à être monté sur un mur, un plafond, un plancher, une niche ou une garniture de mur, et comprenant une partie de support en forme de boîtier (1, 1a) dont les coins sont renforcés par des nervures (4) et une partie de verrouillage (12) apte à être insérée dans ladite partie de support et comportant deux bras (22), caractérisé en ce que la partie de verrouillage se présente sous la forme d'une prise (12) et en ce que la partie de support comporte une paroi de fond intermédiaire (10), ladite paroi de fond intermédiaire (10) présentant une ouverture centrale (11) destinée à recevoir et à verrouiller les bras (22) de la

partie de verrouillage in forme de prise, introduite par une extrémité ouverte de ladite partie de support.

2. Support selon la revendication 1, caractérisé en ce que la partie de support (1) pour l'extrémité de la broche du store à rouleau comporte, sur sa face frontale (15), deux trous cruciformes (16) pour la fixation de la broche rectangulaire en position verticale.

3. Support selon la revendication 1, caractérisé en ce que la face frontale (17) de la partie de support (1a) pour le bossage du store à rouleau comporte deux encoches (18) correspondant aux deux trous cruciformes (16) de la première partie de support (1) et une fente de liaison (19) s'ouvrant à une extrémité pour l'insertion du bossage du store.

4. Support selon les revendications 1—3, caractérisé en ce que les bras (22) de la partie de verrouillage en forme de prise (12) sont disposées de telle façon à reposer contre la broche et la bossage respectivement, afin d'absorber les frottements et l'usure.

5. Support selon l'une quelconque des revendications précédentes, caractérisé en ce que les parois frontale et arrière sont renforcées par des épaisissements (14).

6. Utilisation du support de store à rouleau selon les revendications précédentes, dans un système de montage de stores à rouleau et de tiges coulissantes pour rideaux normaux en forme d'ensemble unitaire.

Patentansprüche

1. Kunststoffrolladenhalter zur Wand-, Decken-, Boden-, Nischen- oder Wandbeschlagmontage,

— mit einem kastenförmigen durch Eckrippen (4) verstärkten Halteteil (1, 1a) und einem am Halteteil aufnehmbaren Verriegelungsteil (12) mit zwei Schenkeln (22),

dadurch gekennzeichnet,

— daß das Verriegelungsteil die Form eines Stopfens (12) hat und

— daß das Halteteil einen Zwischenboden (10) mit einer zentralen Öffnung (11) hat zum Aufnehmen und Verriegeln der Schenkel (22) des durch ein offenes Ende des Halteteils eingesetzten Verriegelungsstopfens.

2. Halter nach Anspruch 1, dadurch gekennzeichnet,

— daß das Halteteil (1) für das Spindelende des Rolladens auf der Vorderseite (15) zwei kreuzförmige Löcher hat zum Befestigen der rechteckigen Spindel in der senkrechten Stellung.

3. Halter nach Anspruch 1, dadurch gekennzeichnet,

— daß die Vorderseite (17) des Halteteils (1a) für den Zapfen des Rolladens zwei Schlitz (18) aufweist, die den beiden kreuzförmigen Löchern (16) im ersten Halteteil (1) entsprechen, wobei ein offen endender Verbindungsschlitz (19) zum Einsetzen des Zapfens des Rolladens dient.

4. Halter nach Anspruch 1 bis 3, dadurch gekennzeichnet,

— daß die Schenkel (22) des Verriegelungsstopfens (12) an der Spindel bzw. am Zapfen so anliegen, daß sie Reibung und Verschleiß aufnehmen.

5. Halter nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet,

— daß die vorderen und hinteren Wände durch Verdicken (14) verstärkt sind.

6. Anwendung des Rolladenhalters nach den vorhergehenden Ansprüchen bei einem System zur Montage von Rolläden und Schiebungen für normale Vorhänge als einzige Konstruktion.

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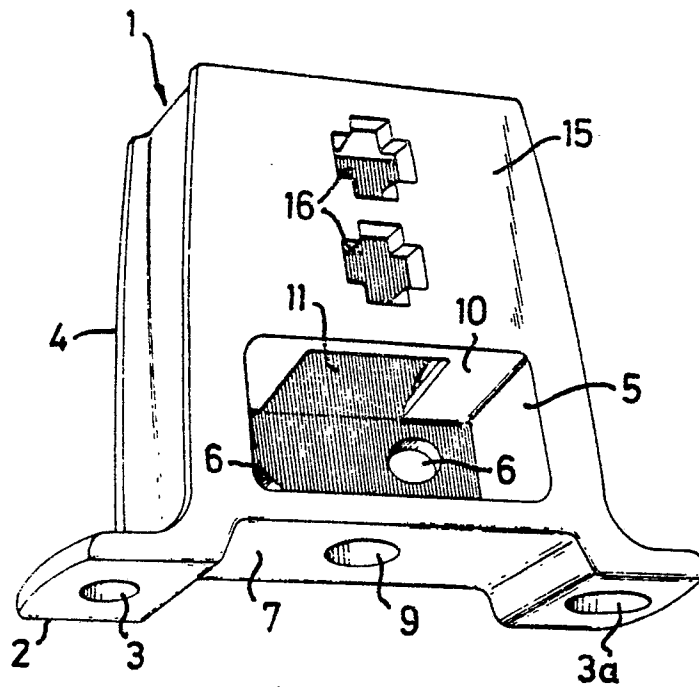


FIG. 1

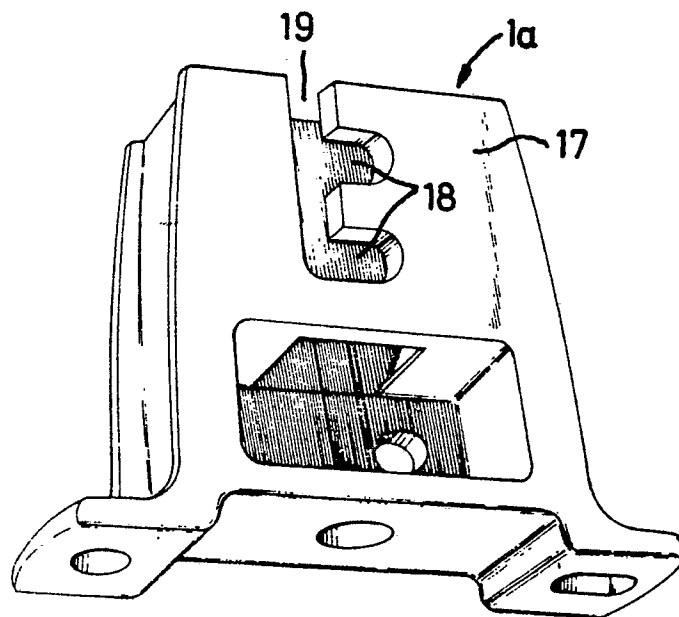


FIG. 2

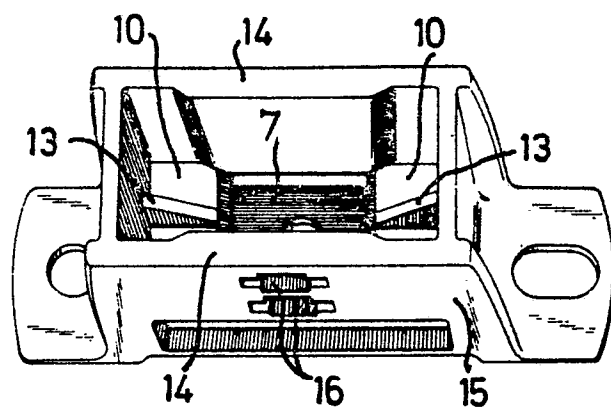


FIG. 3

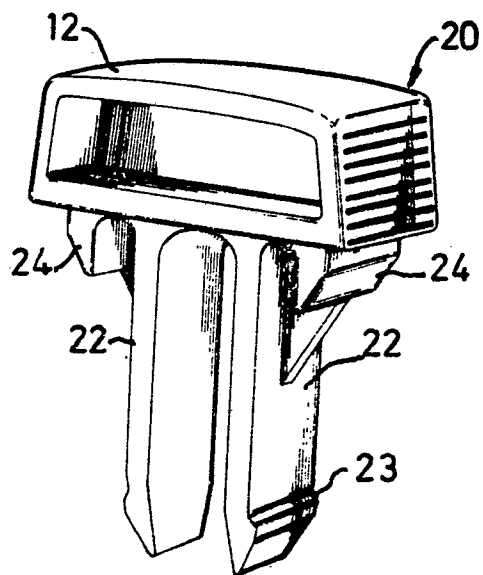


FIG. 4

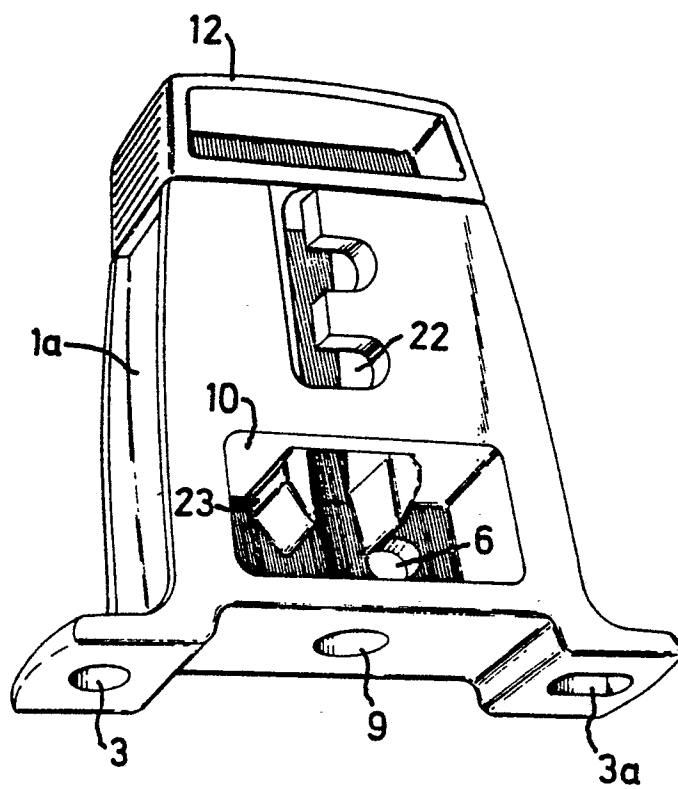


FIG. 5