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DEVICE FOR FASTENING LADDER TAPES OR LADDER CORDS TO A TILT ROD OF A VENETIAN BLIND

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FIG.1

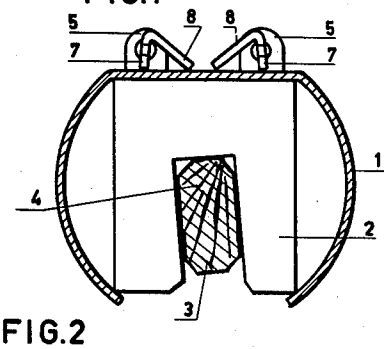



FIG.2

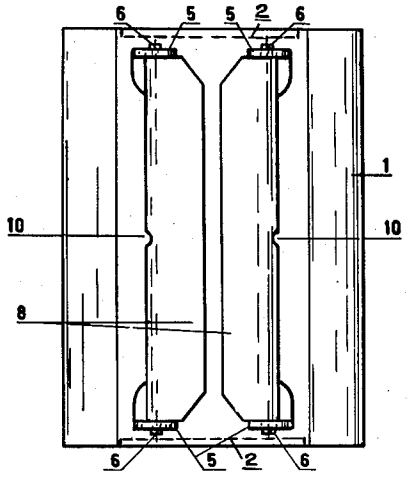
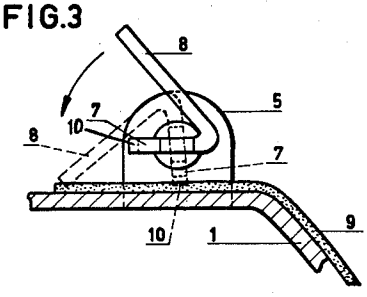



FIG.3




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# DEVICE FOR FASTENING LADDER TAPES OR LADDER CORDS TO A TILT ROD OF A VENETIAN BLIND

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3 Claims. (Cl. 160—178)

This invention relates to a device for the fastening of ladder tapes or ladder cords to a tilt rod of a Venetian blind, said device comprising a carrier member for said ladder tapes or ladder cords, said carrier member being adapted to be mounted non-rotatably on the tilt rod. The term "tilt rod" as used herein refers to that element in a Venetian blind assembly which rotates about its longitudinal axis to change the positive angle of the slats which are normally suspended from this rod on tapes or cords.

In the devices of this type known so far the carrier member for the ladder tapes or ladder cords is provided with lips which are punched out of the upper surface of the carrier member, the cords of the ladder tapes catching around said lips by means of a loop formed at said ends. These loops are formed by folding back the end of the ladder tape and to fasten said end to the ladder tape with the aid of rivets. For each ladder tape two lips are necessary located at a small distance from each other in order to make it possible to arrange the loops provided at the ends of the ladder tapes on the lips. Since the ladder tapes are not allowed to shift laterally on the lips of the carrier member, said lips may only have a joint length equal to the width of the ladder tape in question. This entails the disadvantage that for each ladder tape width carrier members with lips of different length must be made and kept in stock. Moreover, such carrier members are not suitable for ladder cords. Another disadvantage is that the lips have to carry the entire weight of the Venetian blind and consequently these must be strong so that the entire carrier member has to be manufactured from strong material.

The device according to the invention avoids these disadvantages in that said carrier member comprises one or more clamping members with the aid of which the ends of the ladder tapes or ladder cords may be clamped to the carrier member. The ends of the ladder tapes may be inserted without any prior treatment directly in the opened clamping members whereafter said clamping members are closed. In these clamping members ladder tapes of any width as well as ladder cords may be clamped so that a universally serviceable fastening or fixing device is obtained in which the ladder tapes or ladder cords may be rapidly and easily arranged and an adjustment is always possible.

A preferred embodiment of the device according to the invention is characterized in that each clamping member consists of a broad lever of substantially L-shaped cross-section rotatably arranged on the upper surface of the carrier member, both legs of said lever cooperating with said upper surface. These levers may be punched out of sheet metal with small extensions which may serve as rotation shafts fitting in appertures of the lips formed out of the upper surface of the carrier member.

According to the invention the leg of each lever cooperating with the upper surface of the carrier member may have a recess for receiving the ends of a ladder cord.

The invention will be further described below with reference to the accompanying drawings showing by way of example an embodiment of the device according to the invention.



FIG. 1 shows a cross-section of said device.

FIG. 2 is a top plan view thereof.

FIG. 3 shows on an enlarged scale part of said device.

The device shown in the drawings comprises a sheet metal carrier member **1** having at its front ends a strip **2**, said strips being provided with a recess **3** for receiving a tilt rod **4** which has been diagrammatically indicated by a cross. Usually this tilt rod has a square or hexagonal cross-section. Out of the upper surface of the carrier means **1** four lips **5** have been punched, said lips being provided with apertures and serving as bearings for extensions **6** of levers **7**, **8** rotatably mounted in said bearings.

The levers **7**, **8** consist of sheet metal. The legs **7** thereof co-operate with the upper surface of the carrier member **1**, and, as is apparent from FIG. 3, they clamp the ends of a ladder tape **9** firmly over its entire width or substantially over its entire width. The length of the legs **8** may be so selected that the end thereof also clampingly acts on the ladder tape when the lever is in the clamping position.

As a consequence thereof a particularly satisfactory and reliable clamping action is obtained.

As is apparent from the drawings the lever legs **7** are provided in the middle with a small recess **10**. This recess **10** indicates the point where the ends of the ladder cords of a Venetian blind equipped with ladder cords should be fastened.

It is obvious that the invention is not restricted to the embodiment described above by way of example and shown in the drawings, but that it may be modified in various ways without departing from the scope of the invention.

I claim:

1. A device for securing carrying means such as ladder tapes and ladder cords supporting slats on the tilt rod of a Venetian blind, comprising a carrier member for said carrying means having a depending front wall and a depending back wall, each of said walls being provided with a recess for slidably mounting said device on said tilt rod to rotate with said rod and two levers, each being L-shaped in cross-section, rotatably mounted in lips projecting from the upper surface of said carrier member, each of said L-shaped levers, when in the securing position, having one of its legs in a substantial vertical position and the other of said legs then in an oblique position with regard to the upper surface of the carrier member, both legs of each lever being of sufficient length as to simultaneously clamp an end of the carrying means against the upper surface of the carrier member.

2. A device for securing carrying means such as ladder tapes and ladder cords supporting slats on the tilt rod of a Venetian blind, comprising a carrier member having a depending front wall and a depending back wall, said walls being integral with said member, each of said walls being provided with a recess for slidably mounting said device on said tilt rod to rotate with said rod, two levers L-shaped in cross-section, and rotatably mounted in two pair of lips projecting from the upper surface of said carrier member and integral therewith, each of said L-shaped levers being rotatably mounted in a pair of said lips perpendicular to said carrying means in such a manner that when in the carrying means securing position, one of the legs of each lever is in a substantial vertical position and the other of said legs is in an oblique position with regard to the upper surface of the carrier member, both legs of each lever being of such length to clamp an end of the carrying means against the upper surface of the carrier member, the vertical leg being provided with a recess along the edge for receiving a ladder cord and for pressing said end against said carrier member in a clamping manner.

3. In a Venetian blind, a device for securing the ends of ladder tapes or ladder cords carrying the tiltable slats to the tilt rod, said rod being of polygonal cross-section, comprising a sheet metal member having a flat upper surface, integral arcuate sides depending from said surface and flat vertical end strips depending from said surface and integral therewith, each of said strips having a slot therein to slidably receive said tilt rod, the sides of said slot engaging the sides of said tilt rod so that said device rotates with the rotation of said rod, one pair of spaced lips projecting upwardly from said upper surface along each side thereof and integral therewith, and a broad lever of substantially L-shaped cross-section pivotally mounted in each pair of said lips at the intersection of the legs of said lever, both legs of each of said levers being engageable in a clamping relationship with an end of said tape or cord with said upper surface, the shorter of said legs of each lever having a recess on the clamping edge to receive a ladder cord.



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