

Sept. 6, 1955

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2,717,035

ATTACHING MEANS FOR VERTICAL VENETIAN BLINDS

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2 Sheets-Sheet 1

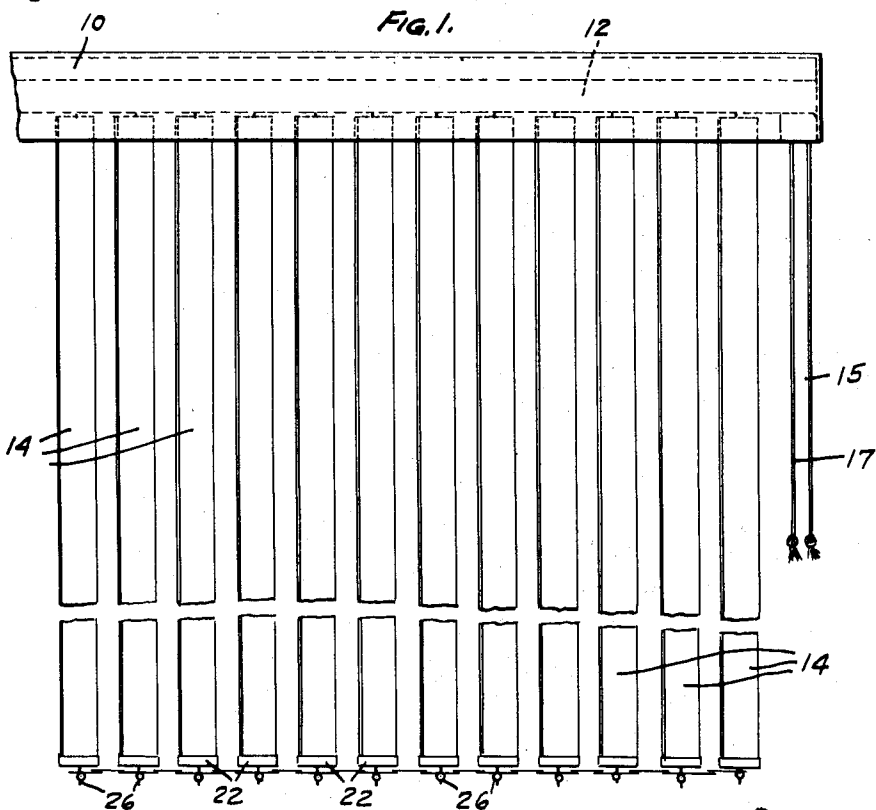
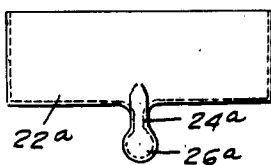


*Fig. 2.*

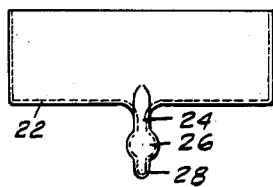


*Fig. 3.*

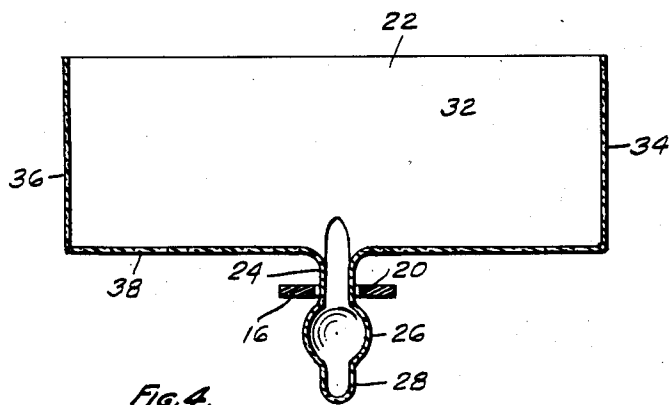


*Fig. 4.*

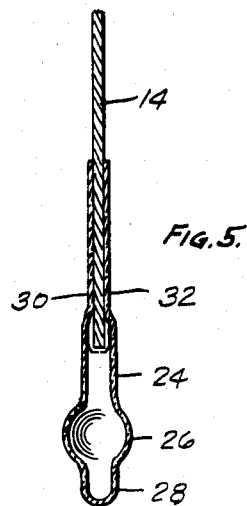


*Fig. 5.*

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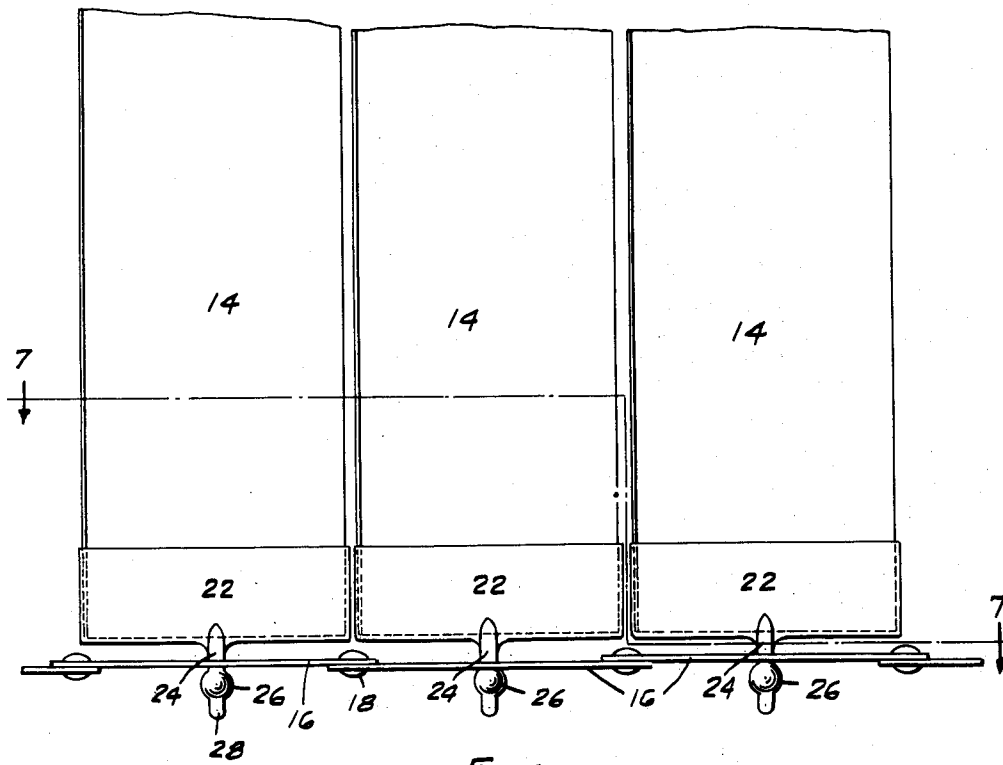
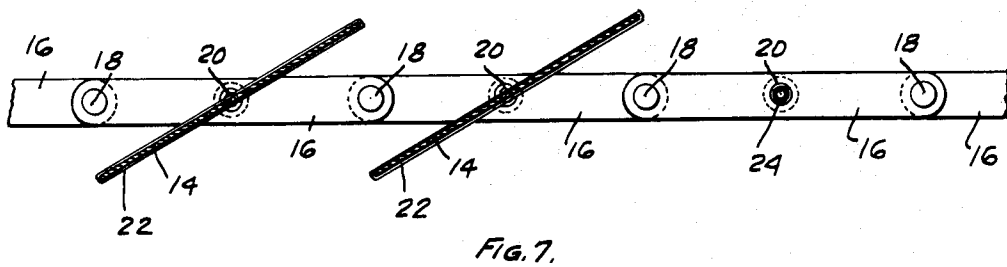
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ATTACHING MEANS FOR VERTICAL VENETIAN BLINDS

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2 Sheets-Sheet 2



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2,717,035

## ATTACHING MEANS FOR VERTICAL VENETIAN BLINDS

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Application August 26, 1953, Serial No. 376,635

4 Claims. (Cl. 160—178)

My invention relates to improvements in the construction of vertical Venetian blinds.

My invention relates more particularly to improved means for stabilizing the lower ends of the hanging slats to prevent them from being blown against each other causing annoying noise and unsightly appearance.

As is well known in the art, some means must be employed adjacent the lower ends of the suspended slats for keeping them in spaced relationship. This is now being done by slat harnesses, toggle links, chains or other means or devices which are connected to the lower ends of the slats and tend to help establish an equal spaced relationship when the slats are drawn together like a draw curtain.

The principal object of this invention is to provide an improved noiseless connection or stabilizer construction for connecting together the lower ends of a plurality of suspended slats of a vertical Venetian blind.

A further object of the invention is to provide noiseless connections including a metal linkage for attaching the ends of the suspended slats together.

A further object of the invention is to provide a unique plastic cap capable of being put on the ends of the suspended slats for attachment to a stabilizer linkage.

A further object of the invention is to provide a flexible stud or button on the plastic cap capable of quick and easy attachment to the metal linkage of the stabilizer means.

Other objects and advantages will be more apparent from the following description wherein reference is had to the accompanying drawings, upon which

Fig. 1 is a side elevational view of a vertical Venetian blind assembly showing the application of the attachment means for the bottom ends of the suspended slats;

Fig. 2 is a side elevational view of one of the plastic caps which are employed;

Fig. 3 is a similar side elevational view of another form of construction of the same;

Fig. 4 is an enlarged cross-sectional view of the slat end cap shown in Fig. 3;

Fig. 5 is a vertical transverse sectional view of the same showing the manner in which it is applied to the end of a slat;

Fig. 6 is a full size elevational view of the bottom end of a series of slats of the blind; and

Fig. 7 is a plan sectional view taken on the line 7—7 of Fig. 6.

In the embodiment of the invention which I have chosen to illustrate and describe the same, I provide a cornice or housing 10 which may be fastened in a door or window opening in any suitable manner. I also provide slat turning mechanism 12 which is mounted in the cornice from which a plurality of spaced parallel slats 14 may be vertically suspended. Draw cords 15 and 17 are provided in association with the slat turning mechanism both for rotating the slats about a vertical axis or for drawing the slats to one side in an open position or towards the center of the opening to a closed position.

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This mechanism is well known in the art and may be similar to that shown in Walter Turkowski Patent No. 2,529,714; issued November 14, 1950:

As previously pointed out herein, all vertical Venetian blinds require some mechanism adjacent the lower end of the same for keeping the suspended slats in spaced relationship. For this purpose I provide a plurality of connected link members 16; each link member being connected at its end to an adjacent link member in any suitable manner by pivot means 18.

The links 16 each have a medial opening 20 therein to receive a connection from the slats 14. In order to effect both a noiseless and frictionless connection, I have provided a moulded plastic cap 22 which has a downwardly projecting stem 24 that loosely passes through the opening 20 of each link. The cap 22, as best shown in Figs. 3, 4 and 5, may be moulded with a spherical hollow bulb 26 formed therein and a tip or extension 28 below the bulb 26.

With this construction it can be seen that in order to fasten the link 16 to the cap 22, it is a simple matter to grasp the tip 28 of the flexible plastic cap, and by pulling downwardly on the same, the bulb 26 is elongated so that it can be pulled through the opening 20 of the link 16. As soon as the tip is released, the bulb 26 will assume its spherical shape and effectively prevent the link 16 from falling off the stem 24.

The cap 22 is formed with the two side walls 30 and 32, end walls 34 and 36, and a bottom wall 38, and may be slightly stretched to be fastened over the lower end of the slat 14 where it will be held by friction on the same. Where arcuate slats are used, it may be preferable to apply a liquid adhesive to the lower ends of the slats so that when the caps are fastened over the end of the same they will conform to the convex and concave surfaces of the sides of the slats.

In Fig. 2 I have shown a modified form of the cap 22a wherein the stem 24a terminates in a hollow bulb 26a, the additional lower extension or tip 28 not being provided. The bulb 26a may be elongated by pulling on the same or by inserting a small instrument through the cap 22a to extend the same downwardly to elongate the same for fastening on the link 16.

While in the present construction the cap has been shown as a flexible plastic moulded product, I also desire to make the same of sponge rubber or any other suitable or desirable material which has elasticity so that the bulb portion 26 may be drawn through an opening smaller than the same when it assumes its natural shape.

I contemplate that changes and modifications may be made in the exact details shown, and I do not wish to limit myself in any particular; rather what I desire to secure and protect by Letters Patent of the United States is:

1. The combination with vertical Venetian blinds of the type having a cornice and a plurality of parallel vertical slats hung suspended from said cornice of stabilizer means connecting the lower ends of said suspended slats together, said means including pivotally connected links connected to the lower ends of said slats, each link having a medial opening therethrough and a cap connected to the ends of each of said slats and having a stud extending through an opening in a link, the ends of said studs being in the nature of hollow spherical bulbs and of a larger size than the link opening, said studs being compressible to permit drawing of the bulbous ends of the same through said link openings.

2. A cap adapted to be fastened over the lower edge of a vertical Venetian blind slat for use in connecting a plurality of slats together in pivotal relation, said cap made of flexible plastic material and having an upper end opening to receive a lower end of a slat and a down-

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wardly projecting tube portion, said tube portion having a narrow neck and a hollow spherical bulb portion.

3. A cap adapted to be fastened over the lower edge of a vertical Venetian blind slat for use in connecting a plurality of slats together in pivotal relation, said cap made of flexible plastic material and having an upper end opening to receive a lower end of a slat and a downwardly projecting tube portion, said tube portion having a narrow neck and a hollow spherical bulb portion and a downwardly depending tip which may be grasped to pull the tube portion to elongate the bulb portion.

4. The combination with caps adapted to be fastened over the lower edges of vertical Venetian blind slats and connected link members having medial openings therein to fasten to said cap for connecting a plurality of slats together, said cap made of flexible plastic material and each having an upper end opening to receive a lower

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end of a slat and a downwardly projecting tube portion, said tube portion having a narrow neck and a spherical bulb portion, said bulb portion adapted to be compressed to be pulled thru the opening in a link for connecting the caps to said links.

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