Oct. 9, 1951 B. B. JUNKUNC 2,570,455

VENETIAN BLIND RAIL TAPE CLAMP

Filed April 1, 1948 2 Sheets-Sheet 1

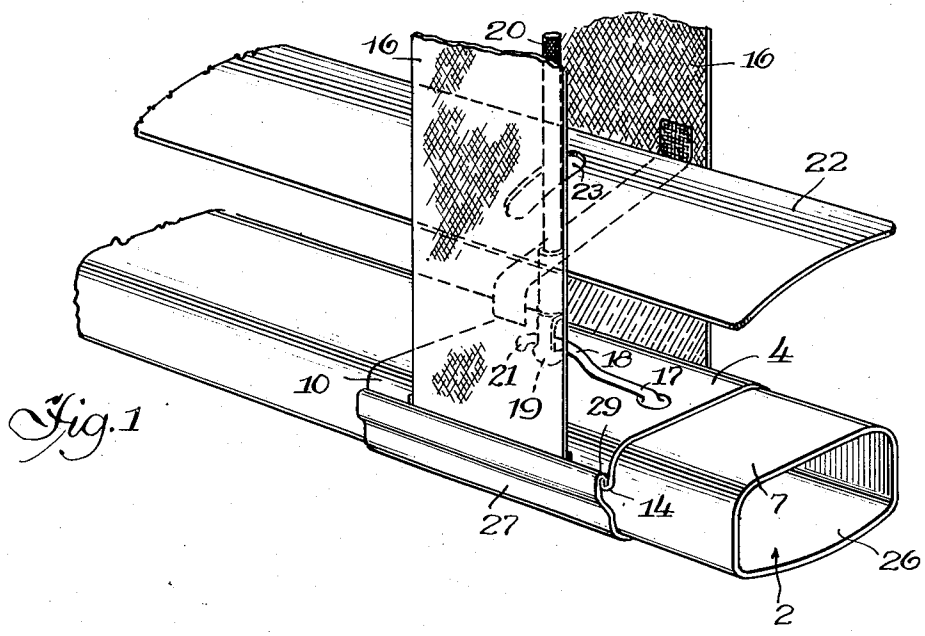


Fig. 1

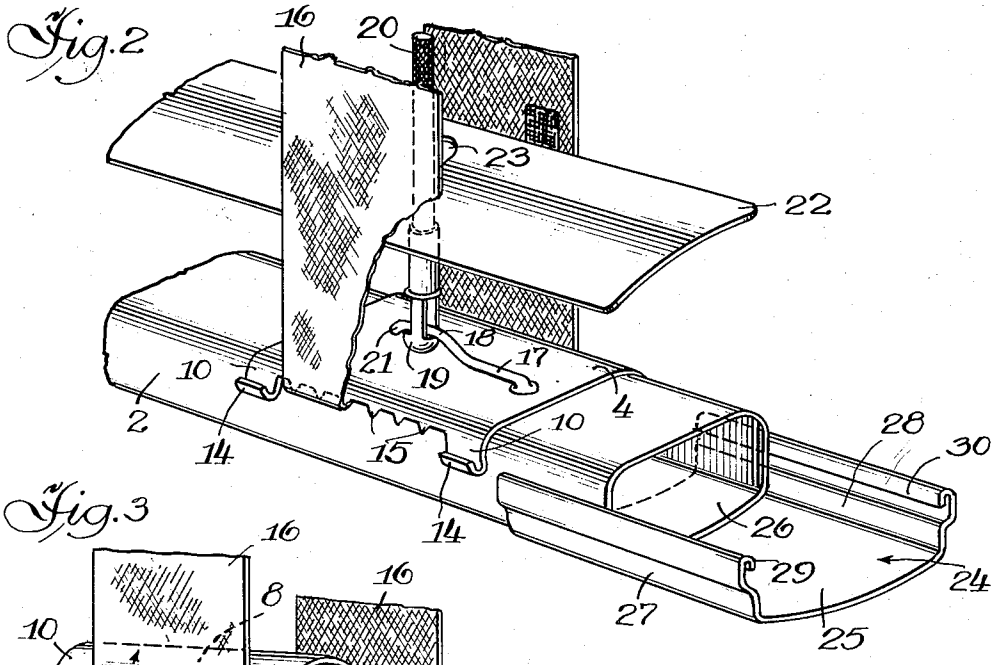


Fig. 2

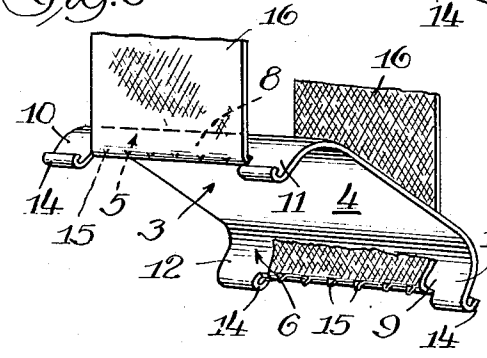


Fig. 3

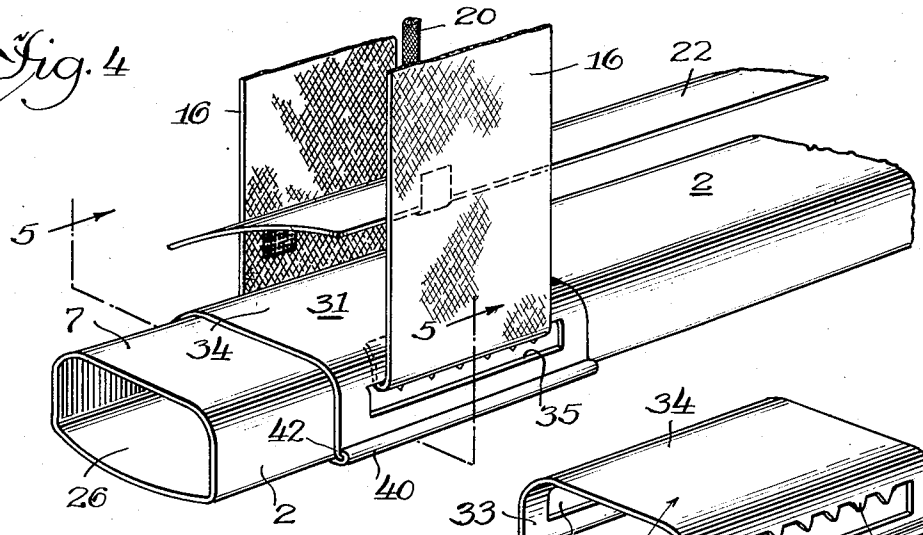
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Fig. 4



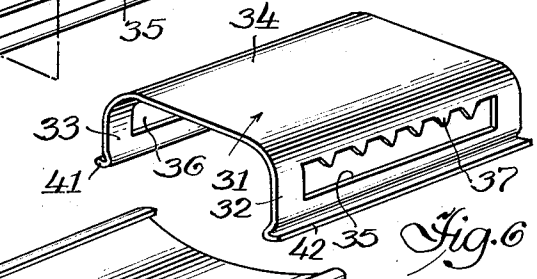


Fig. 6

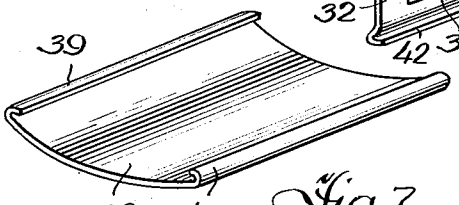


Fig. 7

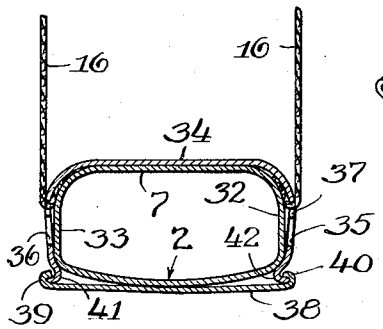


Fig. 5

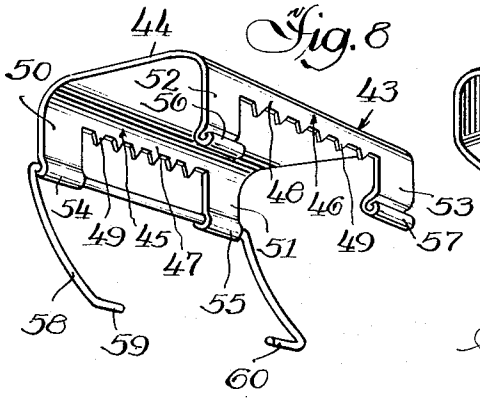


Fig. 8

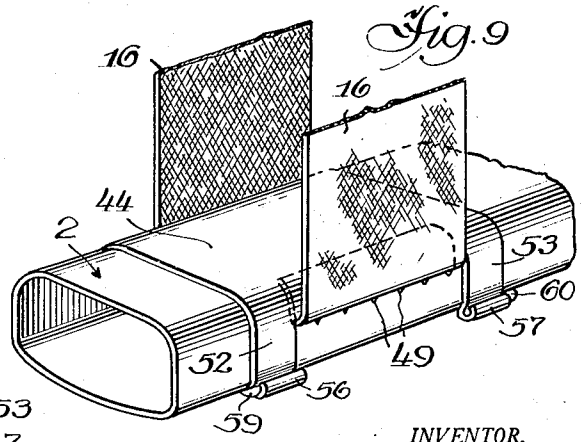


Fig. 9

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2,570,455

VENETIAN BLIND RAIL TAPE CLAMP

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Application April 1, 1948, Serial No. 18,457

5 Claims. (Cl. 160—178)

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This invention relates to a Venetian blind rail, and particularly to means for securing the slat-supporting tapes and the lift and/or tilt cord thereto.

In my prior Patent No. 2,391,904 I have disclosed a Venetian blind rail having a transverse slot on one side, in the case of the bottom rail on the underside, and a flexible closure member seating in the slot and holding the ends of the tapes. While this structure eliminates many of the disadvantages of prior art construction it has the disadvantage, particularly in the case of comparatively wide blinds of the compound blind type, of weakening the transverse strength of the rail.

In the present structure, the means for securing the ends of the tape to the rail does not require weakening the strength of the rail in any manner. The tape fastening means also provides means for readily attaching or detaching the end of the cord. The tape fastening means may be readily secured to either the top or bottom rail in any desired lateral position and may be removed therefrom without the use of tools.

The rail of the present invention is simple in design and construction, relatively inexpensive to manufacture, and, in addition to the advantages pointed out above, has other advantages which will become apparent upon reading the following specification, taken in conjunction with the accompanying drawings, in which:

Figure 1 is a fragmentary perspective view of a lower corner portion of a Venetian blind showing a preferred embodiment of the tape and cord fastening means attached to the rail;

Fig. 2 is a view similar to Fig. 1, with the clamping member detached and a portion of the tape broken away to facilitate illustration of the parts;

Fig. 3 is a detail perspective of the upper member of the tape fastening means;

Fig. 4 is a fragmentary perspective view of another embodiment of the tape fastening means;

Fig. 5 is a cross sectional view, taken along the line 5—5 of Fig. 4;

Fig. 6 is a detail perspective view of the upper member of the tape fastening means shown in Fig. 4;

Fig. 7 is a detail perspective view of the lower or clamping member of the tape fastening means shown in Fig. 4;

Fig. 8 is a perspective view of another embodiment of the tape fastening means; and

Fig. 9 is a fragmentary perspective view showing the tape fastening means of Fig. 8 attached to a Venetian blind rail.

In the drawings, the reference numeral 2 indicates a Venetian blind rail which is preferably a tubular member approximately rectangular in cross section and made of sheet metal. The ends

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of rail 2 are shown open, but it will be understood that they are ordinarily closed by some conventional end closures. Although the invention is illustrated in connection with a bottom rail, it will be understood that it can be used equally as well with a top rail.

The tape fastening means comprises an upper member 3 having a top wall 4 and depending side walls 5 and 6. Top wall 4 is of the same width as the top wall 7 of rail 2, and the curvature at the angles between top wall 4 and side walls 5 and 6 coincides with the curvature between the top and side walls of rail 2 so that member 3 fits snugly on rail 2.

Member 3 is called an upper member for convenience, but it will be obvious that it will be a lower member whenever the tape fastening means is applied to the top rail of a Venetian blind. The intermediate portions 8 and 9 of side walls 5 and 6 are cut away to leave legs 10, 11 and 12, 13, respectively, extending therebelow. The length of intermediate portions 8 and 9 is slightly greater than the width of the tapes used in the blind. Each leg has a lip 14 curled outwardly and upwardly for a purpose hereinafter described.

Intermediate portions 8 and 9 of side walls 5 and 6 are preferably provided with a plurality of serrations or teeth 15. The ends of tapes 16 are turned under side walls 5 and 6 and are impaled on teeth 15. The ends of tapes 16 lie flat between the inner surface of member 3 and the outer surface of rail 2 when member 3 is positioned on rail 2. Intermediate portions 8 and 9 may be smooth and tapes 16 would be held with a certain amount of security when the clamping member, hereinafter described, is secured in place, but it is preferred to have teeth 15 sharp enough to actually pierce the ends of tapes 16.

Upper member 3 may also have a cord fastening hook 17 secured to top wall 4. Although this cord fastening hook is shown only in connection with the embodiment of Figs. 1 to 3, it may be used with any of the other embodiments illustrated. Hook 17 may be welded to top wall 4 or may be secured thereto in any other suitable manner. The free end 18 of hook 17 is spaced from top wall 4 to pass through an eye 19 permanently secured to the end of cord 20. The tip of hook 17 is bent downwardly slightly, as indicated at 21, to prevent eye 19 from slipping off hook 17. Eye 19 may be moved off hook 17 readily, but will not slip off accidentally due to the downturned tip 21. Slats 22 are provided with slots 23 registering with cord 20 in conventional manner.

The lower or clamping member 24 comprises a bottom wall 25, conforming to bottom wall 26 of rail 2, and upstanding side walls 27 and 28. Side walls 27 and 28 have flanges 29 and 30, respec-

tively, which extend inwardly and are adapted to cooperate with lips 14 to clamp upper member 3 and thereby clamp the tape fastening means with the attached tape on rail 2. After upper member 3 is positioned on top of rail 2, clamping member 24 is preferably slid over the bottom portion of rail 2 until flanges 29 and 30 are interengaged with lips 14. The parts may be made of steel sufficiently resilient so that clamping member 24 can be snapped into place with flanges 29 and 30 engaging lips 14. Clamping member 24 fits snugly around the bottom of rail 2 and prevents side walls 5 and 6 from spreading outwardly from rail 2, thereby securely clamping the ends of tapes 16 in place when flanges 29 and 30 engage lips 14.

In the embodiment of the invention illustrated in Figs. 4 to 7, inclusive, upper clamping member 31 fits on rail 2 with side walls 32 and 33 extending to the edges adjacent bottom wall 26 of the rail when top wall 34 of member 31 is positioned against top wall 4 of rail 2. Side walls 32 and 33 have apertures 35 and 36, respectively, cut therefrom intermediate their ends. The length of these apertures is slightly greater than the width of tape 16 so that the ends of the tape can be inserted therein. The upper edges of apertures 35 and 36 are provided with serrations or teeth 37, similar to teeth 15, for engaging tapes 16 adjacent their ends.

Lower or clamping member 38 is of the same shape as bottom wall 26 of rail 2 and fits snugly against it. Flanges 39 and 40, on the longitudinal edges of clamping member 38, are turned upwardly and inwardly. They are adapted to engage lips 41 and 42 on the bottom edges of side walls 32 and 33 to clamp the tape fastening means against rail 2. Clamping member 38 is preferably slid in place with flanges 39 and 40 engaging lips 41 and 42, although, as in the case of the previously described embodiment, it may be snapped into place if made of steel sufficiently resilient.

In the embodiment of Figs. 8 and 9, the tape fastening means comprises a single member 43 having a top wall 44 and side walls 45 and 46 fitting around the top and sides of rail 2. Side walls 45 and 46 have recessed intermediate portions 47 and 48 having a length slightly greater than the width of tapes 16. Intermediate portions 47 and 48 are provided with teeth 49 adapted to pierce the ends of tapes 16. Legs 50 and 51 depending from side wall 45, and legs 52 and 53 depending from side wall 46, extend the entire depth of rail 2. The ends of legs 50 and 51 are curled to form hinge sleeves 54 and 55. Legs 52 and 53 are also curled at their ends to form lips 56 and 57 open at their top.

A wire 58 has one portion passing through hinge sleeves 54 and 55. The wire is then bent at right angles and its ends are bent inwardly, as indicated at 59 and 60. After the member 43 is positioned on rail 2, wire 58 is swung around its pivot and ends 59 and 60 are sprung into engagement with lips 56 and 57, respectively.

Although I have described three preferred embodiments of my invention in considerable detail, it will be understood that the description is intended to be illustrative, rather than restrictive, as many details may be modified or changed without departing from the spirit or scope of the invention. Accordingly, I do not desire to be restricted to the exact structure described, except as limited by the appended claims.

I claim:

1. Tape fastening means for a Venetian blind rail comprising an upper member having depending side walls, a plurality of teeth integral with said side walls and a plurality of curled lips projecting in a plane below said teeth, and a lower member having cooperating members engaging said lips to clamp said upper member in position.

2. Tape fastening means for a Venetian blind rail comprising an upper member having side walls fitted around a portion of said rail, said side walls being recessed intermediate their ends and having tape engaging teeth projecting from said intermediate portions, a pair of legs depending below each of said recessed portions, a lip projecting from each of said legs, and a lower member having flanges on its longitudinal edges engageable with said lips to clamp said first mentioned member against said rail.

3. Tape fastening means for a Venetian blind rail comprising an upper member having side walls fitting around a portion of said rail, said side walls being recessed intermediate their ends and having tape engaging teeth projecting from said intermediate portions, a pair of legs depending below each of said recessed portions, the legs depending from one of said side walls being curled at their ends to form hinge sleeves, the legs on said other side wall having lips projecting therefrom, and a wire threaded through said hinge sleeves and bent so that its free ends are engageable with said lips to hold said tape fastening means on said rail.

4. In combination with a Venetian blind rail, a tape and cord fastening member comprising an upper member snugly fitting around the top and sides of said rail, a hook projecting from the top of said upper member, a plurality of tape engaging teeth on each side of said upper member, a plurality of lips extending from the lower edges of said upper member, and a clamping member snugly fitting against the bottom of said rail, and a pair of engaging members on said clamping member engaging said lips to hold said tape ends between said upper member and said rail.

5. In combination with a Venetian blind rail, a tape fastening member comprising an upper member fitting around the top and sides of said rail, the sides of said member having a plurality of teeth engaging the ends of the tape, a plurality of lips extending from the lower edges of said upper member, and a clamping member fitting around the bottom of said rail, and a pair of engaging members on said clamping member engaging said lips to hold said tape ends between said upper member and said rail.

BELA B. JUNKUNC.

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The following references are of record in the file of this patent:

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2,079,852	Grassby	May 11, 1937
2,391,904	Junkunc	Jan. 1, 1946

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