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VENETIAN BLIND TAPE

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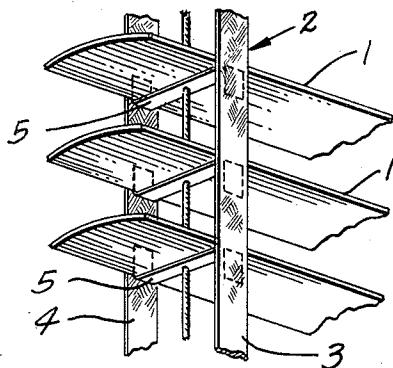


Fig. 1

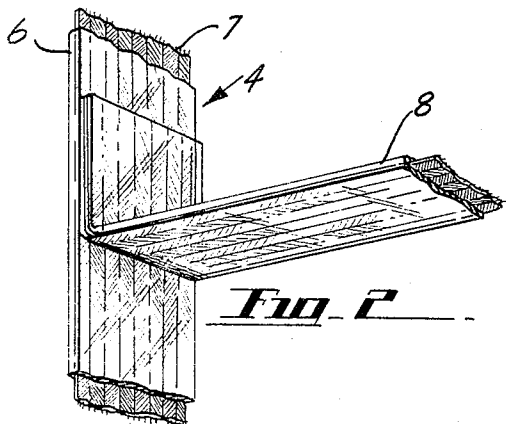


Fig. 2

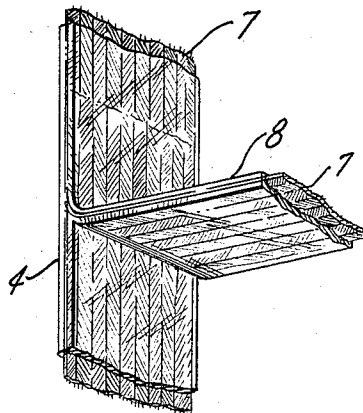


Fig. 3

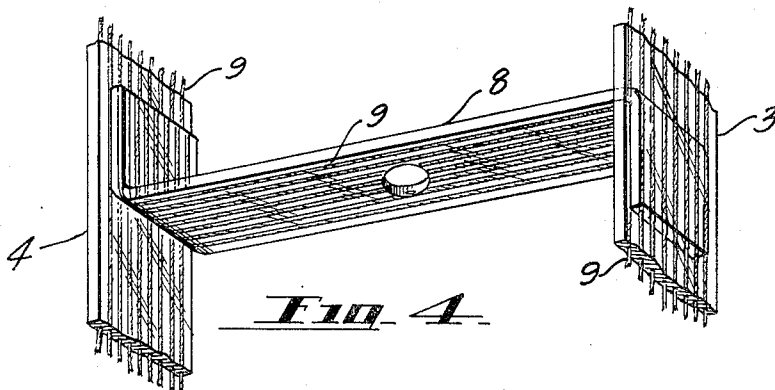


Fig. 4

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# UNITED STATES PATENT OFFICE

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## VENETIAN BLIND TAPE

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5 Claims. (Cl. 160—178)

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My invention relates to an improvement in Venetian blind tapes and has particular reference to a tape construction which may be employed as a Venetian blind ladder which will provide a readily cleanable surface thereto.

In Venetian blind construction it has been the common practice to support the Venetian blind slats upon ladders comprising a pair of vertically extending fabric or web supporting members interconnected at intervals with cross bars of fabric or web material either sewn or interwoven into the vertical tapes. Once the Venetian blind has been assembled with this type of tape ladder, it is substantially impossible to clean the tapes of dust or dirt which may collect upon them unless the blind is completely disassembled and the tapes subjected to a laundering process. Moreover, the Venetian blind tape ladders are exposed to weather and changing climatic conditions which cause the tape fabric to rapidly deteriorate, the fibers becoming brittle and cracking after a relatively short life, necessitating the replacement of these tapes with the attendant necessity for disassembly of the blind and re-assembly with new tape ladders.

It is, therefore, an object of my invention to provide a tape which may be employed in the construction of a Venetian blind ladder wherein the tape is provided with a relatively hard, smooth, moisture-proof surface which may be readily cleaned by merely wiping the same either with a dry or damp cloth while the Venetian blind remains in its assembled condition.

It is also an object of my invention to provide a Venetian blind tape ladder wherein the exterior of the ladder is formed of a flexible plastic material reinforced by fibers or fabric embedded within the plastic material.

It is an additional object of my invention to provide a Venetian blind ladder wherein the load of the slats and other devices supported by the ladder is carried by longitudinally extending fibers, wires or fabric which is substantially non-stretchable embedded within a plastic surface material which affords a smooth, hard, moisture-proof but flexible surface to the ladders, enabling them to be readily cleaned.

It is a still further object of my invention to provide a Venetian blind tape of the character set forth wherein the plastic material which forms the desired cleanable surface may be transparent or translucent to enhance the appearance and beauty of the finished blind by permitting the employment of colors in the plastic material

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or the combination of a design in the reinforcing material visible through the plastic coating.

Other objects and features of my invention will be apparent from a study of the following specifications, read in connection with the accompanying drawing, wherein:

Fig. 1 is a fragmentary perspective view of a portion of a Venetian blind assembly using a ladder constructed in accordance with my invention;

Fig. 2 is a detail fragmentary perspective view of a portion of the Venetian blind ladder illustrated in Fig. 1;

Fig. 3 is a fragmentary perspective view similar to Fig. 2 but illustrating a modified form of my invention; and

Fig. 4 is a fragmentary perspective view of a portion of a Venetian blind ladder illustrating a still further modified construction of the ladder embodying my invention.

Referring to the drawing, I have illustrated in Fig. 1 a portion of a Venetian blind assembly wherein a plurality of slats 1 are supported in spaced relation to each other by means of a tape ladder indicated generally by the reference character 2, the ladder being formed of a pair of vertically extending tapes 3 and 4 interconnected at regular intervals by means of cross bars 5.

In accordance with the principles of my invention, I prefer to construct the ladders 2 of plastic material 6 as illustrated in more detail in Fig. 2, the plastic material having embedded therein fibers, webbing material or other fabric material 7 having the characteristic of being substantially non-stretchable so as to provide the necessary tensile strength to the ladders to support the load of the slats, bottom rail or other devices which are suspended upon the ladders in the assembled Venetian blind.

In Fig. 2 I have illustrated one manner in which such ladders may be constructed as by forming strips of ladder tape material by coating the fabric reinforcement with a suitable plastic material which, at atmospheric temperatures, will be flexible yet provide a smooth, moisture-proof surface, several plastic materials having these characteristics being now available upon the market such as vinyl chloride in a soft or plasticized condition and poly-stearin. The strip of material so formed may be assembled in the shape of the ladder by interconnecting a pair of parallel vertical tapes with short lengths 8 of the strip material as by disposing a part of the cross bar strips along the inner surfaces of the vertical tapes and securing them to the vertical tapes by means of plastic cement adapted

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to adhere the particular form of plastic coating material which has been used as the coating for the strip material.

The finished ladders will therefore have a smooth, relatively hard surface which may be readily cleaned by merely wiping the same with a dry or moist cloth while the embedded fabric material will provide the necessary strength for supporting the load upon the ladders.

By utilizing plastics of the character described in various colors, the appearance of the finished Venetian blind will be greatly enhanced while, if the particular plastic material selected is transparent or translucent so as to permit the fabric reinforcement to be visible therethrough, many combinations of colors and designs may be employed in which the color of the reinforcing material may be blended or contrasted with the color of the coating material.

By referring particularly to Fig. 3, it will be noted that a modified form of construction of the finished Venetian blind ladders may be employed as by forming ladders of the reinforcing fabric in which a complete assembly of vertical strips and cross bars is initially constructed from the fabric or tape and then the assembled fabric ladder is coated with a plastic having the desired characteristics.

In Fig. 4 I have illustrated a still further modified construction of ladder embodying the principles of my invention wherein the strip of material from which the ladder to be formed comprises a strip of flexible, smooth surfaced, moisture-proof strip of plastic material which has embedded therein longitudinally extending fibers 9 which may be long threads of finely spun glass, fine wires or any other thread-like material having the characteristic of resisting elongation under the loads imposed upon the ladders. With this form of construction, the tape material may be assembled in the same manner as was described with reference to Fig. 2 by interconnecting vertically extending tape members with short lengths of the tape material secured in place by means of a plastic cement adaptable to the particular plastic employed in the construction of the tape.

From the foregoing, it will be apparent that I have provided a Venetian blind ladder construction in which there is no necessity for disassembling the Venetian blind structure in order

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to clean the tapes, it merely being necessary to wipe of the plastic surface of the ladder while the blind is still in its assembled condition.

It will also be noted that employment of the combination of the plastic surface with the fibers or fabric material embedded therein will provide a ladder which will have a greater length of life by reason of the fact that the plastic surface material will protect the fibers or fabric from deterioration.

While I have shown and described the preferred embodiment of my invention, I do not desire to be limited to any of the details of construction shown or described herein, except as defined in the appended claims.

I claim:

1. A tape for use in Venetian blind ladders comprising a strip of plastic material, said strip material being flexible at atmospheric temperatures and providing a smooth, moisture-proof surface and having fibers embedded therewithin, said fibers being substantially non-stretchable under longitudinal loads exerted on said strip.

2. A tape for use in Venetian blind ladders comprising a fabric strip completely surrounded by a coating of a plastic material, said plastic material being flexible at atmospheric temperatures and having a smooth, moisture-proof surface.

3. A tape for use in Venetian blind ladders comprising a strip of plastic material, said strip material being flexible at atmospheric temperatures and providing a smooth, moisture-proof surface and having a plurality of longitudinally extending threads embedded therewithin, said threads being substantially non-stretchable.

4. A tape for use in Venetian blind ladders comprising a strip of plastic material, said strip material being flexible at atmospheric temperatures and providing a smooth, moisture-proof surface and having a plurality of longitudinally extending metal threads embedded therewithin.

5. A Venetian blind ladder comprising a pair of parallel vertical tapes connected at regular intervals by cross bars, the tapes and the bars each comprising a fabric strip, said strip being completely embedded within a surface coating of a plastic material, said plastic material being flexible at atmospheric temperatures and providing a smooth, moisture-proof surface.

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